THE ARCHITECTS' JOURNAL

standard contents

every issue does not necessarily contain all these contents but they are the regular features which continually recur

No. 3081] [VOL. 119

THE ARCHITECTURAL PRESS

9, 11 and 13, Queen Anne's Gate, Westminster, S.W.1. 'Phone: Whitehall 0611

Price 1s. 0d.

Registered as a Newspaper.

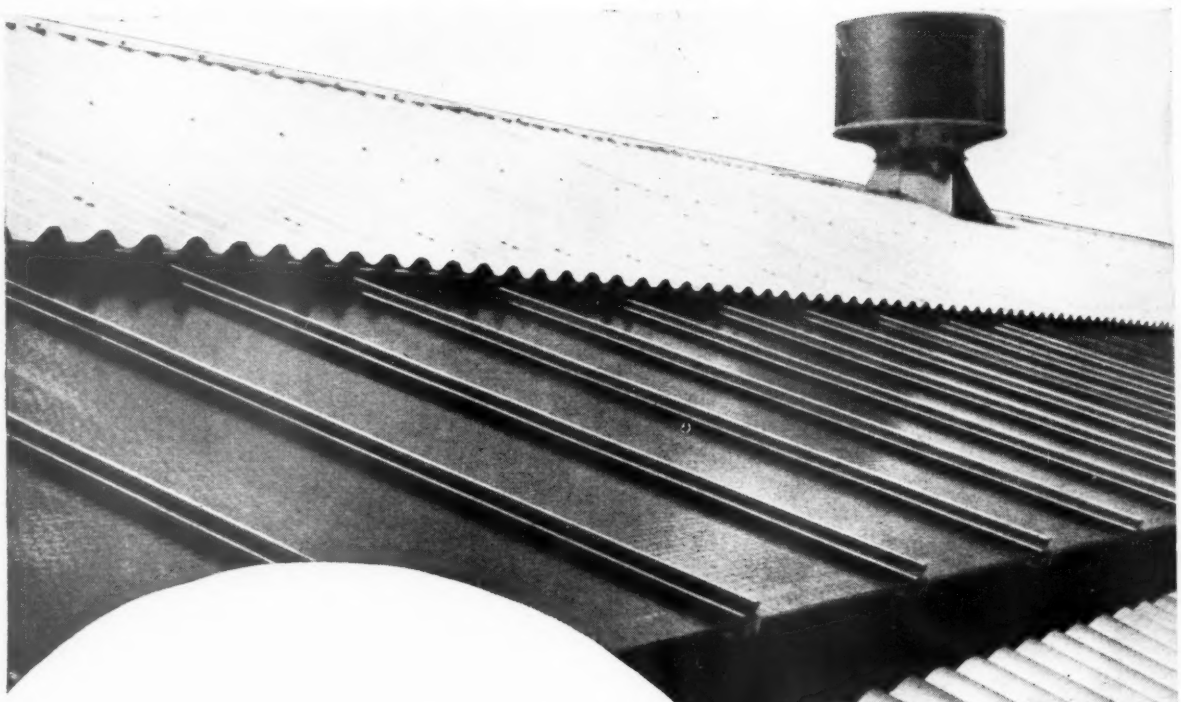
★ A glossary of abbreviations of Government Departments and Societies and Committees of all kinds, together with their full address and telephone numbers. The glossary is published in two parts—A to Ie one week, Ig to Z the next. In all cases where the town is not mentioned the word LONDON is implicit in the address.

AA	Architectural Association, 34/6, Bedford Square, W.C.1.	Museum 0974
AAI	Association of Art Institutions. Secy.: W. Marlborough Whitehead, "Dyneley," Castle Hill Avenue, Berkhampstead, Herts.	
ABS	Architects' Benevolent Society. 66, Portland Place, W.1.	Langham 5721
ABT	Association of Building Technicians. 5, Ashley Place, S.W.1.	Victoria 0447-8
ACGB	Arts Council of Great Britain. 4, St. James' Square, S.W.1.	Whitehall 9737
ADA	Aluminium Development Association. 33, Grosvenor Street, W.1.	Mayfair 7501/8
APRR	Association for Planning and Regional Reconstruction. 34, Gordon Square, W.C.1.	Euston 2158-9
ArchSA	Architectural Students' Association. 34/36, Bedford Square, W.C.1.	
ARCUK	Architects' Registration Council. 68, Portland Place, W.1.	Langham 8738
BAE	Board of Architectural Education. 66, Portland Place, W.1.	Langham 5721
BATC	Building Apprenticeship and Training Council. Lambeth Bridge House, S.E.1.	Reliance 7611, Ext. 1706
BC	Building Centre. 26, Store Street, Tottenham Court Road, W.C.1.	Museum 5400
BCC	British Colour Council. 13, Portman Square, W.1.	Welbeck 4185
BCCF	British Cast Concrete Federation. 105, Uxbridge Road, Ealing, W.5.	Ealing 9621
BCIRA	British Cast Iron Research Association. Alvechurch, Birmingham.	Redditch 716
BDA	British Door Association. 10, The Boltons, S.W.10.	Fremantle 8494
BEDA	British Electrical Development Association. 2, Savoy Hill, W.C.2.	Temple Bar 9434
BIA	British Ironfounders' Association. 145, Vincent Street, Glasgow, C.2.	Glasgow Central 2891
BIAE	British Institute of Adult Education. 29, Tavistock Square, W.C.1.	Euston 5385
BID	Building Industries Distributors. 52, High Holborn, W.C.1.	Chancery 7772
BINC	Building Industries National Council. 11, Weymouth Street, W.1.	Langham 2785
BOT	Board of Trade. Whitehall Gardens, Horseguards Avenue, Whitehall, S.W.1.	Trafalgar 8855
BRDB	British Rubber Development Board. Market Buildings, Mark Lane, E.C.3.	Mansion House 9383
BRS	Building Research Station. Bucknalls Lane, Watford.	Garston 2246
BSA	Building Societies Association. 14, Park Street, W.1.	Mayfair 0515
BSI	British Standards Institution. British Standards House, 2, Park St., W.1.	Mayfair 9000
BTE	Building Trades Exhibition. 4, Vernon Place, W.C.1.	Holborn 8146/7
CABAS	City and Borough Architects Society. C/o Johnson Blackett, F.R.I.B.A., Civic Centre, Newport, Mon.	Newport 5491
CAS	County Architects' Society. C/o F. R. Steele, F.R.I.B.A., County Hall, Chichester.	Chichester 3001
CCA	Cement and Concrete Association. 52, Grosvenor Gardens, S.W.1.	Sloane 5255
CCP	Council for Codes of Practice. Lambeth Bridge House, S.E.1.	Reliance 7611
CDA	Copper Development Association. Kendals Hall, Radlett, Herts.	Radlett 5616
CIAM	Congrès Internationaux d'Architecture Moderne. Doldertal, 7, Zurich, Switzerland.	
COID	Council of Industrial Design. Tilbury House, Petty France, S.W.1.	Abbey 7080
CPRE	Council for the Preservation of Rural England. 4, Hobart Place, S.W.	Sloane 4280
CUC	Coal Utilization Council. 3, Upper Belgrave Street, S.W.1.	Sloane 9116
CVE	Council for Visual Education. 13, Suffolk Street, Haymarket, S.W.1.	Reading 72255
DGW	Directorate General of Works, Ministry of Works, Lambeth Bridge House, S.E.1.	Reliance 7611
DIA	Design and Industries Association. 13, Suffolk Street, S.W.1.	Whitehall 0540
DPT	Department of Overseas Trade. Horseguards Avenue, Whitehall, S.W.1.	Trafalgar 8855
EJMA	English Joinery Manufacturers' Association (Incorporated), Sackville House, 40, Piccadilly, W 1.	Regent 4448
EPNS	English Place-Name Society. 7. Selwyn Gardens, Cambridge.	
FAS	Faculty of Architects and Surveyors. 67, Oxford Street, W.1.	Gerrard 0021
FASS	Federation of Association of Specialists and Sub-Contractors, Artillery House, Artillery Row, S.W.1.	Abbey 7232
FBBDO	Fibre Building Board Development Organisation, Ltd., Melbourne House, Aldwych, W.C.2.	Temple Bar 4561
FBI	Federation of British Industries. 21, Tothill Street, S.W.1.	Whitehall 6711
FC	Forestry Commission. 25, Savile Row, W.1.	
FCMI	Federation of Coated Macadam Industries. 37, Chester Square, S.W.1.	Sloane 1002
FDMA	The Flush Door Manufacturers Association Ltd. Trowell, Nottingham.	Ilkeston 623
FLD	Friends of the Lake District. Pennington House, nr. Ulverston, Lancs.	Ulverston 201
FMB	Federation of Master Builders. 26, Great Ormond Street, Holborn, W.C.1.	Chancery 7583
FPC	The Federation of Painting Contractors, St. Stephen's House, S.W.1.	Whitehall 3902
FRHB	Federation of Registered House Builders. 82, New Cavendish Street, W.1.	Langham 4041
FS (Eng.)	Faculty of Surveyors of England. 67, Oxford Street, W.1.	Gerrard 0021
GC	Gas Council. 1, Grosvenor Place, S.W.1.	Sloane 4554
GG	Georgian Group. 27, Grosvenor Place, S.W.1.	Sloane 2844
HC	Housing Centre. 13, Suffolk Street, Pall Mall, S.W.1.	Whitehall 2881
IAAS	Incorporated Association of Architects and Surveyors. 75, Eaton Place, S.W.1.	Sloane 5615
ICA	Institute of Contemporary Arts. 17-18, Dover Street, Piccadilly, W.1.	Grosvenor 6186
ICE	Institution of Civil Engineers. Great George Street, S.W.1.	Whitehall 4577
IEE	Institution of Electrical Engineers. Savoy Place, W.C.2.	Temple Bar 7676
IES	Illuminating Engineering Society. 32, Victoria Street, S.W.1.	Abbey 5215

N

C

c.2



Above all else

You cannot do better than use T.I. aluminium corrugated sheeting. Being so light it is easily handled and imposes less weight upon roof trusses and stanchions. Corrugated aluminium sheeting cannot rust and offers extremely high resistance to corrosion. It needs no protective coating of paint and is ideal for use in conditions where the surrounding atmosphere is laden with smoke, fumes and salt spray.

For corrugated sheet

PUT Aluminium FIRST
AND TI IN FRONT OF IT

For further information apply to your local Builders' Merchant or Roofing Contractor. If necessary a list of local suppliers can be obtained on application to T.I. ALUMINIUM LTD., REDFERN ROAD, TYSELEY, BIRMINGHAM, 11.

ALUMINIUM AND ALUMINIUM ALLOY INGOT, BILLETS, SLABS, SHEET, STRIP, PLATE, TUBES AND EXTRUSIONS TO ALL COMMERCIAL, A.I.D. AND LLOYD'S SPECIFICATIONS.

A TI COMPANY

This photograph illustrates the first portion of Kellogg House, Chandos Street, London, W.1. The reinforced concrete frame was carried out in our patent FRAMEWELD system.

Architects
Lionel H. Fewster & Partners

Contractors
Leighton (Contractors) I td.

FRAMEWELD

Trade Mark *Patent No. 589066*

is a real TIME and MONEY saver

●

A copy of the FRAMEWELD handbook describing the system will be sent on application.

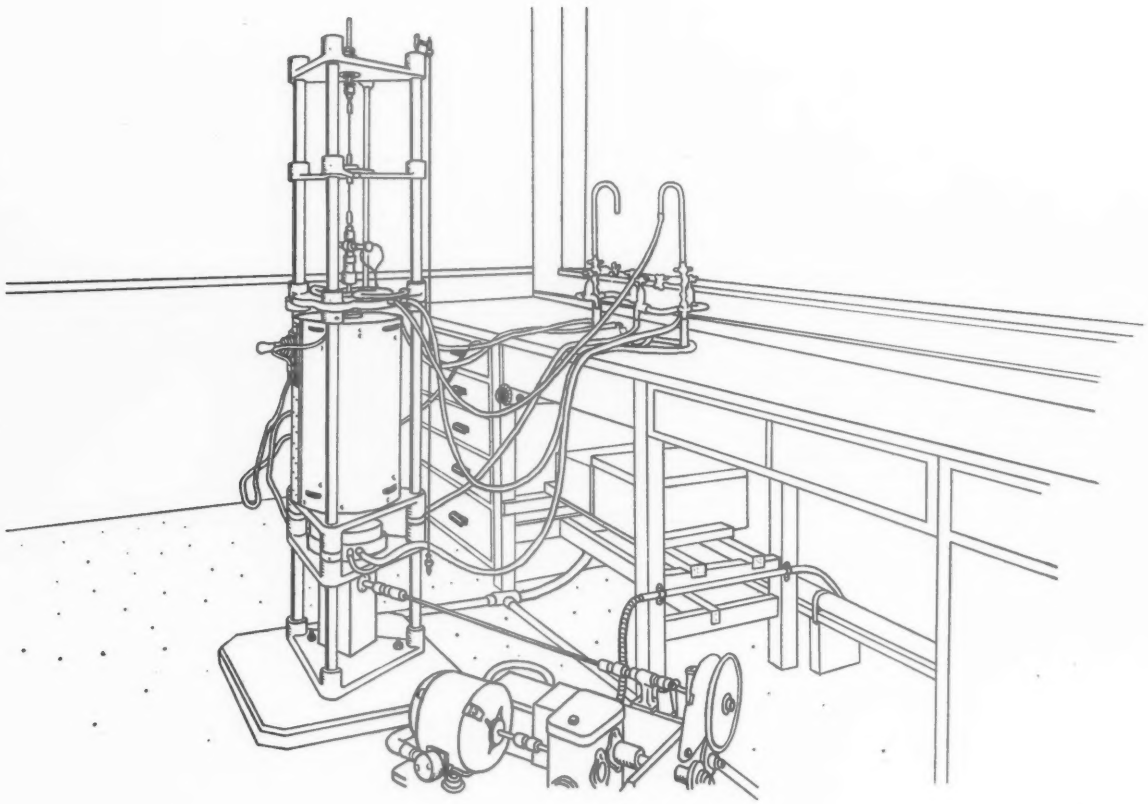
●

T.C.JONES & COMPANY LTD

THE 600 GROUP OF COMPANIES

REINFORCEMENT SPECIALISTS

WOOD LANE LONDON W.12 • *Tel: SHEpherds Bush 2020* BUTE STREET • CARDIFF • *Tel: Cardiff 28786* TREORCHY GLAMORGAN • *Tel: Pentre 2381* 5312/JR29



Aid to Beauty!

THIS apparatus, believe it or not, is one very fundamental reason for the long-lasting attractiveness of Radiation fires, stoves and cookers. It is a Rotating Cylinder Viscometer, in regular use in our Research Laboratories.

By helping to determine the physical properties of enamels it enables us to develop better enamels and better enamelling processes for Radiation Solid Fuel appliances.

But it is *more* than a piece of laboratory apparatus. It represents an integral part of Radiation policy . . . . a policy which enables Architects and Local Authorities to specify Radiation heaters and cookers with confidence.

for space heating, water-heating and cooking, specify

Radiation

SOLID FUEL APPLIANCES

RADIATION GROUP SALES LTD., SOLID FUEL DIVISION, LEEDS 12.

Roofing

THE NATION'S HOUSES

Builders: Messrs. John Robinson & Sons, Ltd.
Architect: D. J. D. Woodhall, Esq., M.I.Mun.E.

Kirkburton U.D.C.

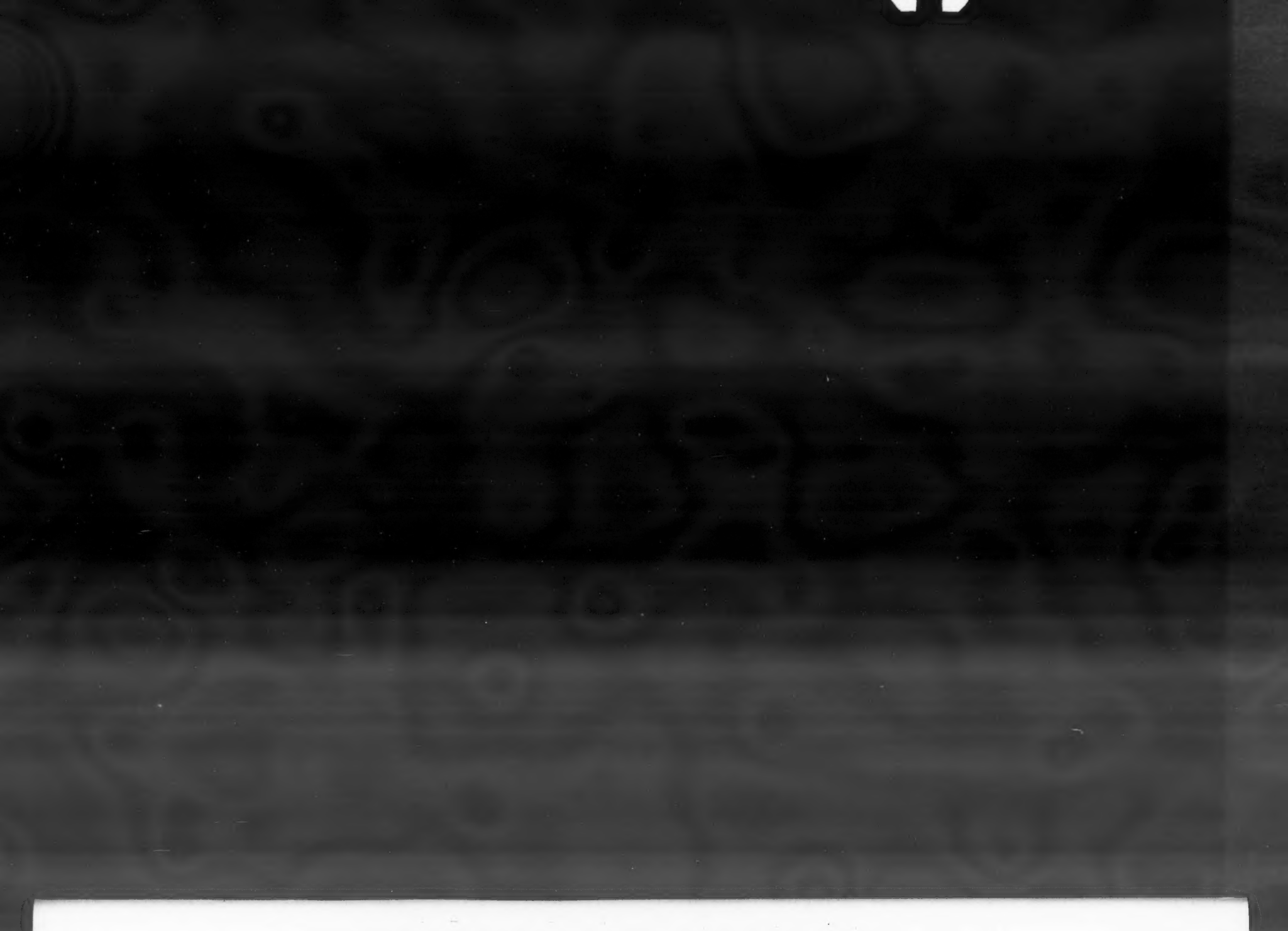
More and more Corporations and Councils are using Dignus 11" by 7" Sandstorm Roofing Tiles in their housing schemes, and as the above illustration shows, Kirkburton U.D.C. is no exception.
Their economical size, pleasing appearance and transverse strength, makes them an obvious choice.
We shall be pleased to send you a copy of our illustrated brochure giving full details.

DIGNUS SANDSTORM *Tiles*

BEST QUALITY TILES ARE GUARANTEED FOR FIFTY YEARS

DIGNUS LIMITED, KEEBLE, NEWCASTLE, STAFFS.

dm DG 14.



HIGGS AND HILL
LIMITED

LONDON

LEEDS COVENTRY

JAMAICA, B.W.I.

New Bakery at Dunfermline, Fife, designed by Kenneth Masson, A.R.I.B.A., Chief Architect S.C.W.S., and roofed with Bitumetal, Briggs Modern Development in Aluminium.

Colour is rapidly becoming an important and attractive feature in roof covering. Many factories, schools and hospitals now have the added advantage of a coloured finish in nature's own mineral granules, permanent and unfading.

Briggs Mineral Surfaced Roofings can be specified in Green, Grey or Red to harmonise pleasantly with the surrounding landscape. They are perfectly adaptable for pitched or curved roofs, on top of 'Bitumetal' as in the structure illustrated, or on any type of deck.

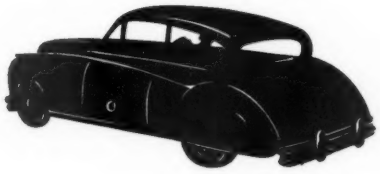
Ask our nearest Area Manager to show you samples and to provide you with the latest technical data.

Briggs ROOFS

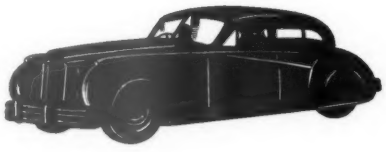
WILLIAM BRIGGS & SONS LTD

London, Vauxhall Grove, S.W.8 *Regd. Office* **Dundee**

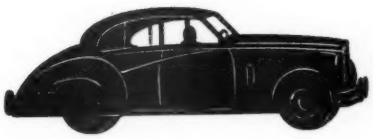
OFFICES & DEPOTS ALSO AT ABERDEEN · BELFAST · BRISTOL
EDINBURGH · GLASGOW · LEICESTER · LIVERPOOL · NORWICH



Wherever



you go . . .



All over the country, you see increasing evidence of the efforts we are making to satisfy growing demands, with more kilns producing more and more bricks, and with organised distribution by road, rail and water.

PHORPRES

LONDON BRICK COMPANY LIMITED *Head Office:* AFRICA HOUSE, KINGSWAY, LONDON, W.C.2
Telephone: Holborn 8282. *Midland District Office:* Prudential Buildings, St. Philip's Place, Birmingham, 3
Telephone: Colmore 4141. *South Western District Office:* 11 Orchard Street, Bristol, 1. Telephone: Bristol 23004/5
Northern District Office: Gascoigne Street, Boar Lane, Leeds, 1. Telephone: Leeds 20771.

BY APPOINTMENT
BRICKMAKERS TO
THE LATE
KING GEORGE VI

LB27

IT'S THE UNDERSIDE THAT NEEDS THE MOST PROTECTION

ZINC *RICH* PAINTS

PROVIDE BEST CORROSION RESISTANCE

ZINC DUST PAINTS have been selected as primers by leading motor car manufacturers. With a pigmentation of 92% to 95% Zinc Dust by weight in the paint film, these paints are becoming increasingly popular for the protection of iron and steel because the protection given is both mechanical and electro-chemical and the steel work is guarded even when the paint film is damaged, so specify a Zinc Dust from the Imperial Smelting range for use in your Zinc Rich Paint Formulations. *We will gladly supply a list of manufacturers upon application.*

ZINC DUST *for Paints*

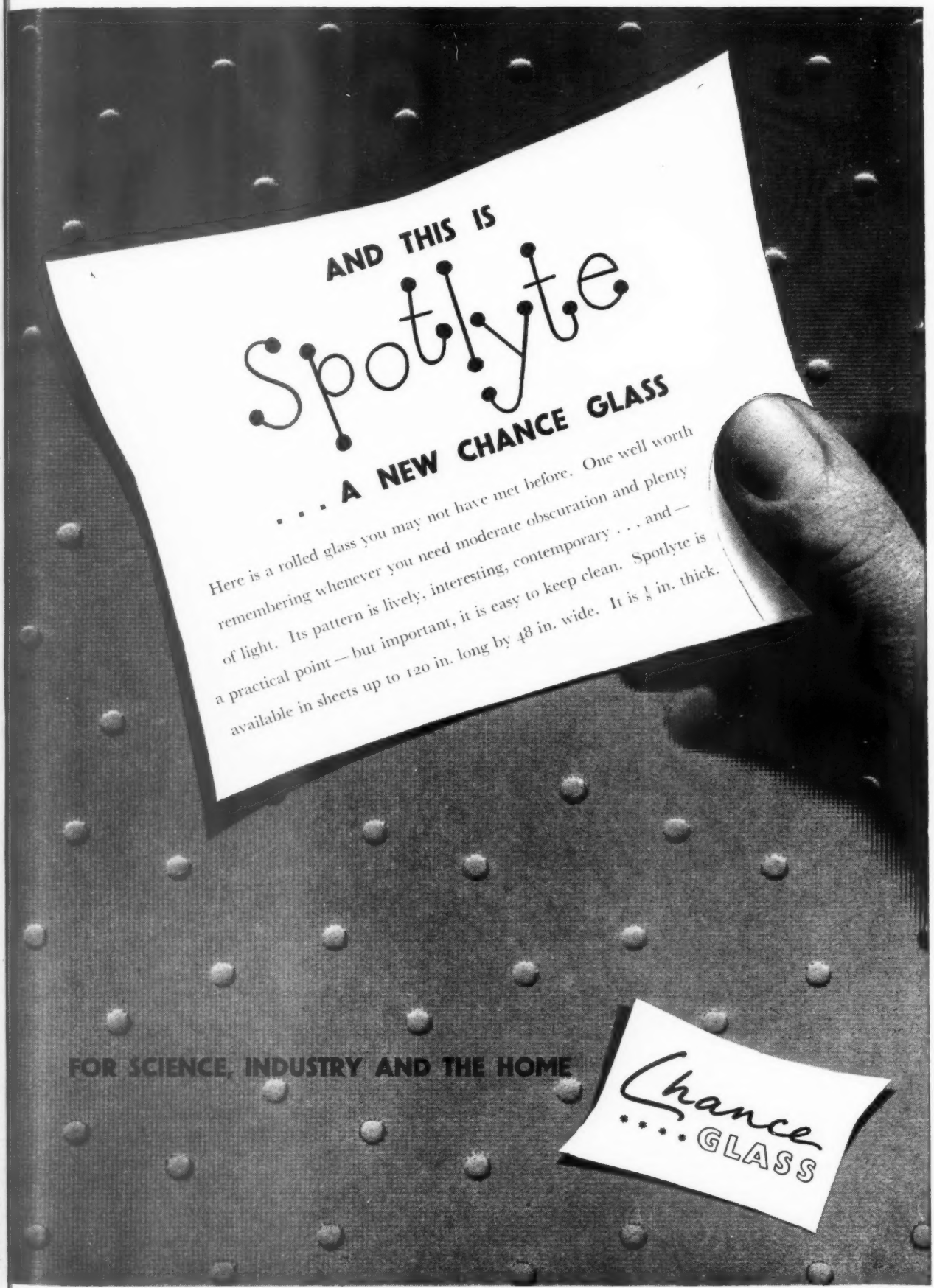
DELAVILLE AND FRICKER'S BRANDS

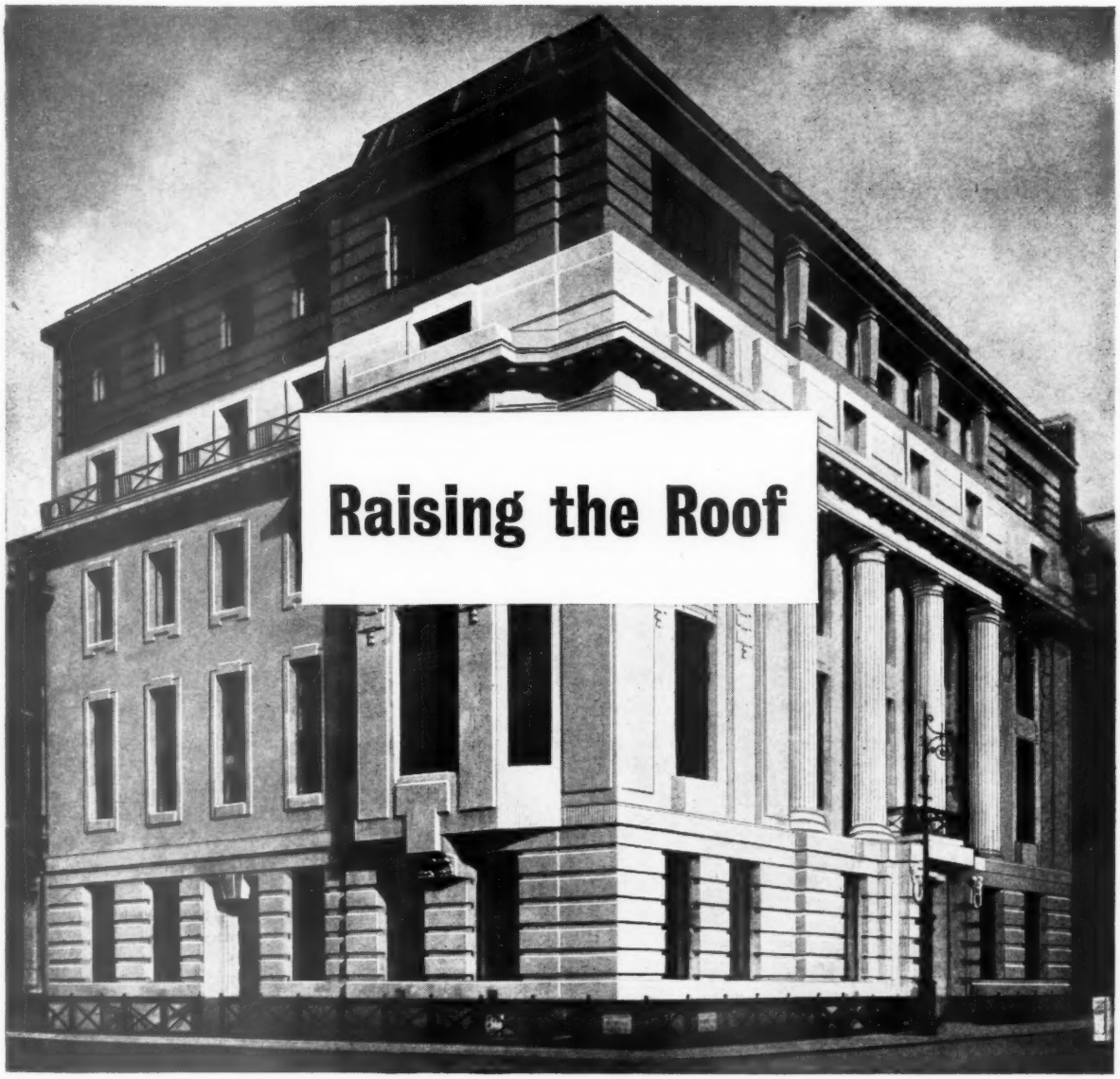
IMPERIAL SMELTING

U.K. MEMBER OF THE CONSOLIDATED ZINC CORPORATION LIMITED

IMPERIAL SMELTING CORPORATION (SALES) LTD · 37 DOVER STREET · LONDON · W.1

CHANCE B
Square, S.W.





Raising the Roof

with 'Kynal'

In Wimpole Street, London, an imposing building—appropriately enough the headquarters of the Royal Society of Medicine—has grown 18 ft. during the past few months. The Society has enlarged its accommodation by adding an extra floor.

The first three floors are stone-faced, but to cover the brickwork of the new fourth floor it was decided to use 'Kynal' heavy-gauge aluminium alloy sheet and aluminium alloy extruded sections — 5 tons of 'Kynal' in all, replacing an estimated 71 tons of stone! The strong architectural character of the stone fabric has been ingeniously simulated, while the use of 'Kynal' has reduced transport and labour costs and speeded up erection. 'Kynal' is a versatile material for architects and builders.

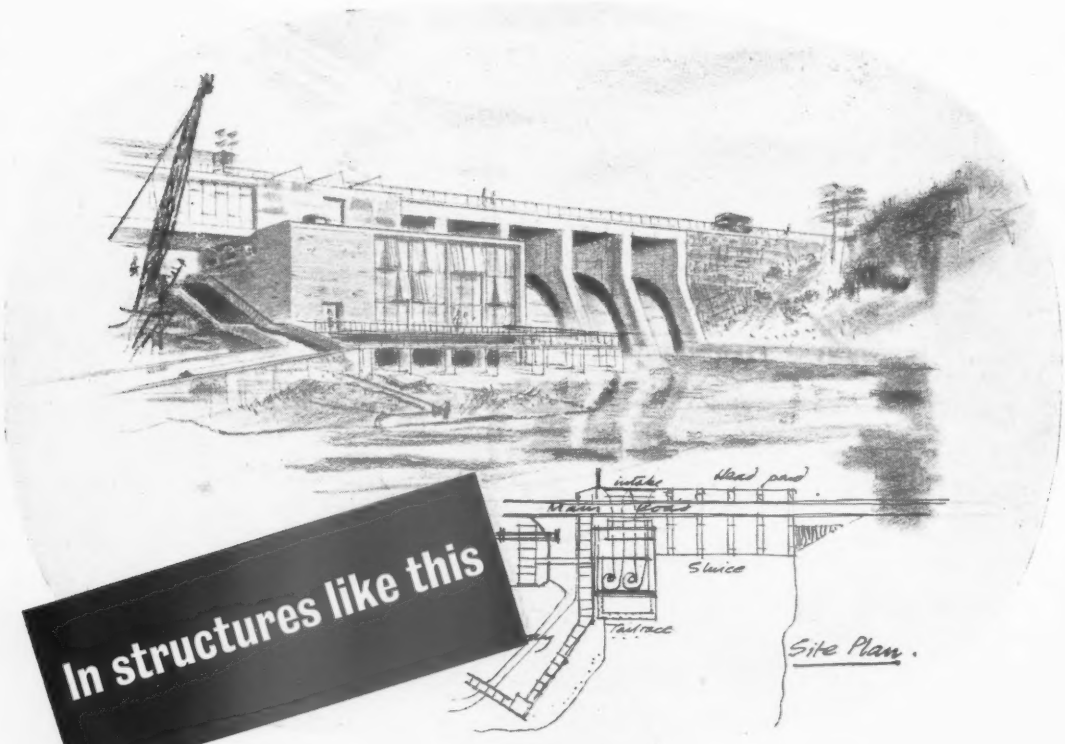
All aluminium work was executed by J. Starkie Gardner Ltd., to the design of the late J. J. Joass, F.R.I.B.A., and Lesslie K. Watson, M.B.E., T.D., M.A., F.R.I.B.A., A.M.T.P.I. Messrs. Trollope and Colls Ltd. were the general contractors. 'Kynal' M 39/2 sheet and extrusions were used.

'KYNAL' ALUMINIUM ALLOYS

IMPERIAL CHEMICAL INDUSTRIES LIMITED · LONDON · S·W·1

ICI

M298



call for **EXPANDITE** products

WATERSTOPS :

EXPANDITE RUBBER WATERSTOPS give superior performance and longer life compared with steel and copper. They accommodate greater joint movement and are designed to give the most effective seal against water pressure.

P.V.C. WATERSTOPS are used where little movement is anticipated. They combine mechanical strength, flexibility, chemical inertness and resistance to ageing.

JOINT FILLER :

FLEXCELL* bitumen impregnated cane fibre filler is highly resilient and non-extruding.

SURFACE SEALING :

Inclined or Vertical Joints. Expandite Vertical Sealer—a bituminous waterproof compound, adheres tenaciously to concrete, accommodates movement and will not slump at high temperatures.

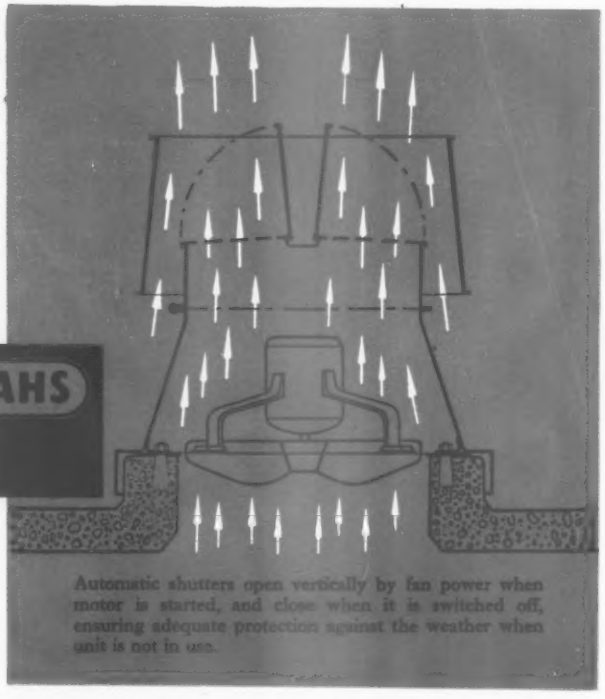
Horizontal Joints. PLI-ASTIC hot-poured rubber/bitumen compound, will not crack in cold weather and is resistant to flow at high temperatures.

** Manufactured specially by Celotex Limited.*
Expandite & Pli-astic are Regd. Trade Marks.

EXPANDITE LIMITED · CHASE RD. · LONDON, N.W.10. Tel: ELGar 4321

VERTICAL JET
AIR DISCHARGE

In industry especially where air is heavily contaminated the Brooks "Vertical Jet" Roof Extract Unit has an important advantage over other types of ventilators . . . in that air and fumes are discharged well clear of the building. With the fumes "GONE WITH THE WIND" replacement air, which enters usually by way of intakes on side walls, doors and windows, remains fresh. The Brooks "Vertical Jet" Unit is available for all types of pitched or flat roofs and maintenance is easily carried out from inside or outside the building. Hinged weather-head saves maintenance time on all flat roof installations. Construction is of heavy gauge steel throughout, HOT-DIP GALVANIZED after fabrication.



Automatic shutters open vertically by fan power when motor is started, and close when it is switched off, ensuring adequate protection against the weather when unit is not in use.

BROOKS BAHS

fan-powered

ROOF EXTRACT UNITS

BROOKS AIR & HEAT SYSTEMS LTD.

Trafalgar House, Gt. Newport St., W.C.2
Telephone : TEMple Bar 5124, 5154 and 5174

Contemporary-style American bar and snack-bar

Annex at the Eccleston Hotel, Victoria, London.

Combination cocktail and snack-bar in natural waxed mahogany and sycamore, with padded and studded front. Undercounter and backfittings have lockable space for food and drink storage, refrigeration and stainless steel wash-up. Sycamore display cabinets have sliding glass doors and mirror backs. General colour scheme, with contrasting walls, is black, grey and red. The whole was carried out by Gaskell & Chambers Ltd.

How 'Expamet' Expanded Metal can help YOU!

The strong versatile material with a 101 uses

FOR openwork flooring, walkways and partitions; concrete reinforcement, fencing and gate panels, lathing for plaster-work, etc. — that's a job for Expanded Metal. Few materials in use today possess so many practical and versatile qualities as this ingenious form of metal.

Extremely strong

Expanded Metal is made from sheets of rolled sheet metal (steel, stainless steel, brass, aluminium and copper) and expanded with no waste of material into a network of diamond shaped meshes. The strands that form the network of diamond meshes are all part of one piece of metal, rigidly connected at their junctions without welding or jointing.

A unique range

The size of the meshes can be varied from $\frac{1}{16}$" to 6" short-way of mesh. By using different thicknesses of plate or sheet, and varying the width of the strands, it is possible to produce a range of meshes and weights unique in metal fabrics.

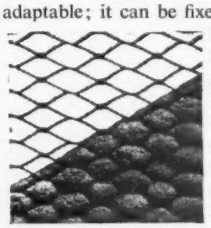
"Expamet" Openwork Stair Treads at London Airport
Engineers: Messrs. Allen & Greaves, Ltd.
Contractors: Messrs. Holland and Hannen & Cubitts, Ltd.

Two heads are better than one

Industry is now turning to this adaptable and economical material. Quite likely it can help *you*, also. Talk over your particular problem with us. Let us know what applications for "Expamet" you have in mind and we will gladly give you our advice, send you our literature and samples. Please write or telephone.

'BB' EXPANDED METAL LATHING

'BB' Lathing is the ideal material for general plasterwork and has many advantages. It is strong, durable and adaptable; it can be fixed in position rapidly and easily; it is fire-resistant, vermin and rot proof. Plaster on expanded metal lathing provides considerable resistance to bending and impact. In each square foot of 'BB' Lathing there are approximately 500 meshes, each mesh forming a key for the support of the plaster. *No other background material has this unique property.*



Expamet

AN EXPANDED METAL PRODUCT

THE EXPANDED METAL COMPANY LTD.,

Burwood House, Caxton Street, London, S.W.1 *Tel: ABBey 3933*
Stranton Works, West Hartlepool. *Telephone: Hartlepools 2194*

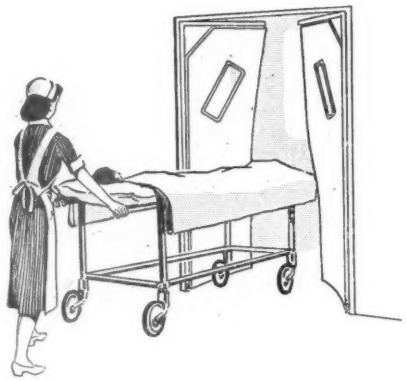
ALSO AT: ABERDEEN · BELFAST · BIRMINGHAM · CAMBRIDGE
CARDIFF · DUBLIN · EXETER · GLASGOW · LEEDS · MANCHESTER

Fitted wherever doors mean damage...

INDUSTRIAL Rubber Doors are supplied in black or white rubber. When white rubber is specified all metal is painted with galvanite, and one coat of cream cellulose.
Maximum size of a pair of doors, 12ft. high by 9ft. wide.
Maximum size for a single door, 12ft. high by 4ft. 6in. wide.
The doors can be regulated to open one way only or both ways.
Each panel contains a vision aperture 18in. by 6in. and is fitted with a sheet of transparent plastic, which can be easily removed.
The rubber doors withstand extremes of temperature.

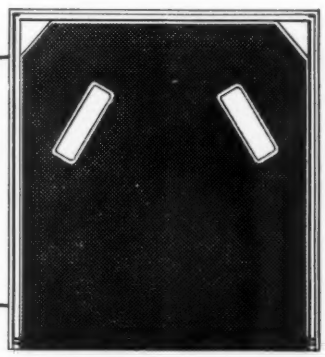
THE BUILDING CENTRE USE THE CENTRE 26 STORE STREET W.C.1

Demonstration Doors have been installed at The Building Centre, 26, Store Street, London, W.C.1.



Rubber panels by **DUNLOP** *Rubber Co., Ltd.*

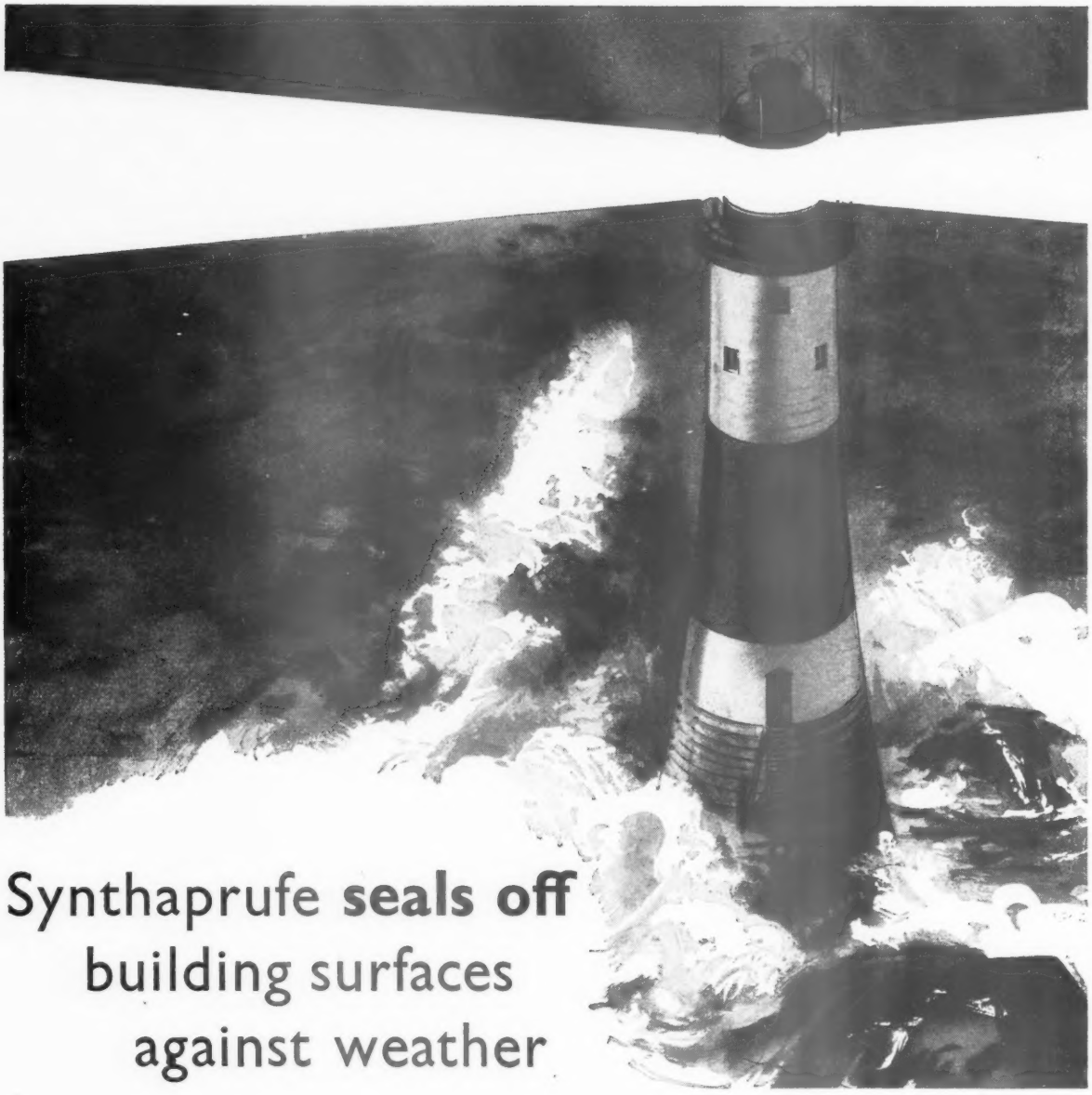
For further particulars apply to the manufacturers (Dept. R.D.12)



Established over 200 years

WILLIAM NEWMAN

WILLIAM NEWMAN & SONS LTD. Hospital Street, Birmingham, 19.



Synthaprufe **seals off** building surfaces against weather

SYNTHAPRUFE is an all-purpose waterproofing, which contains rubber. Made from by-products of British coal, it is applied *cold* by brush to produce a strong elastic film that is highly resistant to moisture and remains flexible under all normal conditions.

Synthaprufe is extremely adhesive. This means that it forms a perfect, lasting seal over the whole of the surface to which it is applied.

AN IDEAL JOINTING

Almost any surface — wood, brick, metal, concrete or plaster — will take Synthaprufe; and with its unique ability to stick firmly, to remain flexible and to resist moisture, Synthaprufe is widely recognized as a first-class material for all kinds of jointing.

A VERSATILE COMPOUND FOR BUILDERS

Besides being ideal for waterproofing and jointing, Synthaprufe makes a highly efficient damp course for walls, both inside and out, and is a recognized treatment where damp is already present. It also makes a very effective sandwich layer in concrete subfloors; it is a completely reliable adhesive for fixing linoleum and wood-block floors; and it makes an excellent mechanical key for plaster finishes over old glazed or painted brick walls, as in hospitals and institutions.

SYNTHAPRUFE

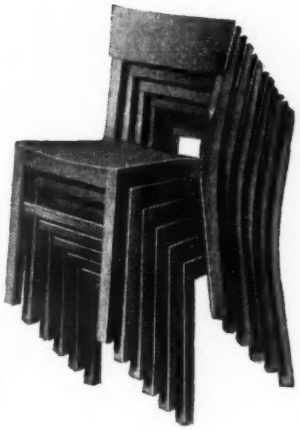
contains **rubber**

MANUFACTURED BY THE NATIONAL COAL BOARD

Synthaprufe is a product of British coal. Further details, and advice on any technical problem, will gladly be given on application to the National Coal Board, By Products, National Provincial Bank Buildings, Docks, Cardiff.

Kingfisher takes the floor at Goldsmiths Hall

A chair that takes the floor need not necessarily take root. In between times Kingfisher Wood Nesting Chairs can be stacked into a fraction of the space they occupy on the great occasions. In fact, Kingfisher storage capacity is very much less than Kingfisher seating capacity—and very strong, light and comfortable seating it is too.



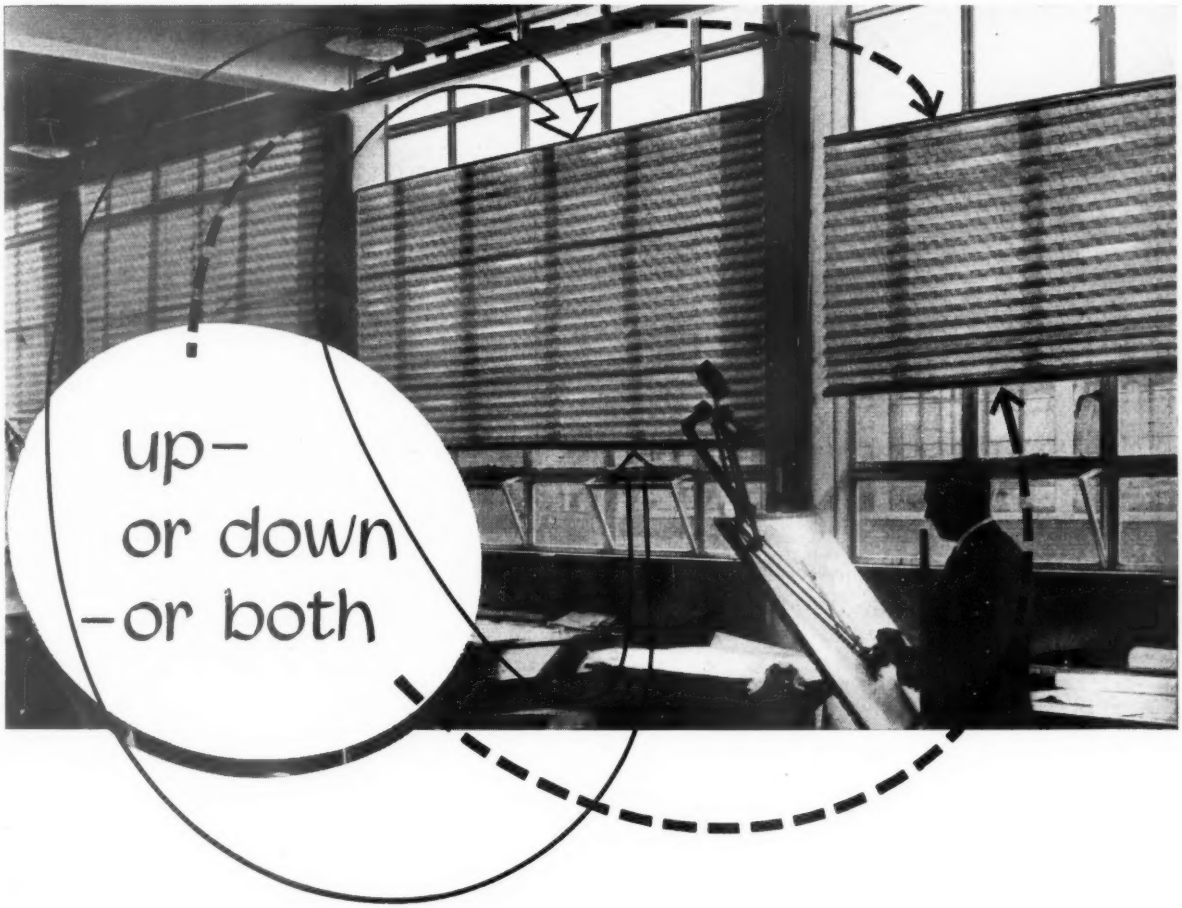
Regd. Design No. 866189

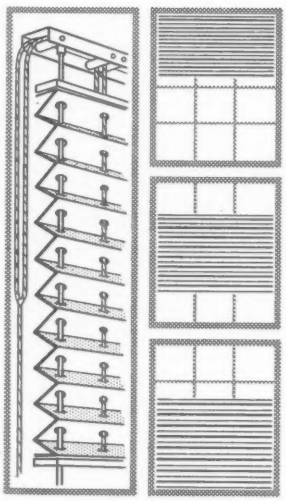
Kingfisher

WOOD NESTING CHAIRS

KINGFISHER LIMITED, Charles Street and Phoenix Street, West Bromwich, Staffs.

Telephone: Tipton 1631. *Telegrams:* Kingfisher, Phone, West Bromwich.
London: 139, Knightsbridge, S.W.1. *Telephone:* Kensington 1331.





AN "ACCORDO" BLIND can be raised from the bottom and/or lowered from the top, as required. Of continuous, pleated fabric—not slats—it is held rigidly in position by guide rods, which prevent flapping when window is open. When not in use it stows compactly at top of window. Now installed in many of the most important hospitals, schools, public buildings in this country and abroad. Widths up to 15 ft.; in a range of attractive shades. Write for details of "Accordo" Sun Blinds; also of "Accordo" Dark Blinds, specially designed to provide light obscuration for laboratories, operating theatres, etc.

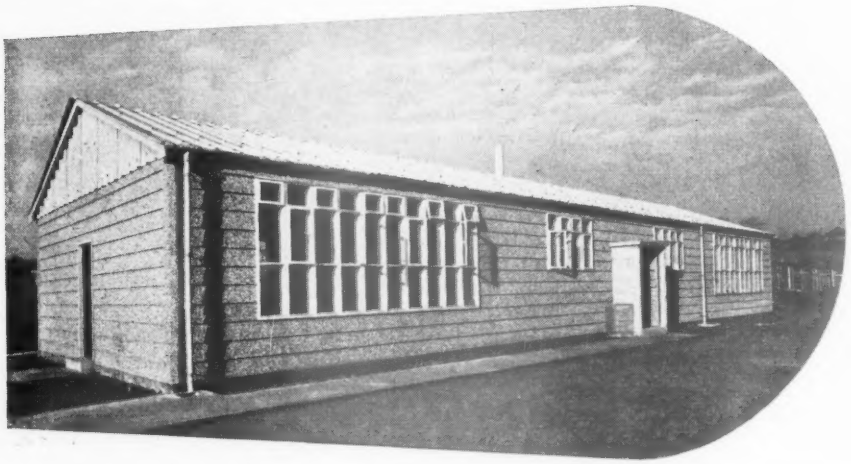
Simple, positive action, *with no springs, catches or moving parts to go wrong, and all metal parts rustless, mean that* ***no maintenance*** *is needed. Rot-proof, vermin-proof fabric is* ***self-dusting,*** *owing to bellows-action of pleats. Suitable for face-fixing or reveal-fixing (needing depth of only 1⅛ in.); can be fitted to horizontal lay-lights or sloping roof-lights.*

ACCORDO Blinds

NO SLATS NO SPRINGS NO DUSTING

ACCORDO BLINDS LTD. 845, LONDON ROAD, THORNTON HEATH, SURREY, THO 6242-3-4
(A subsidiary of Hills (West Bromwich) Ltd.)

T.A. 6363



From Land's End to John o'Groats, there is no building project in any part of the country that Magnet Service cannot benefit.

MAGNET *covers the whole field*

Quick to install and keenly priced, Magnet standardised joinery, doors, windows, cupboards, etc., are a *double* saving on time and money. Three well-equipped factories and large stocks of kilned and air-dried timber combine to make Magnet Service the fastest ever, throughout the entire country.

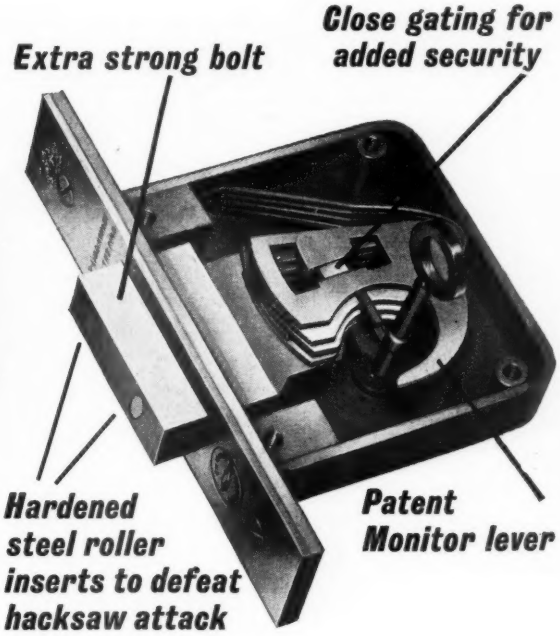
Photographs reproduced by kind permission of Messrs. Wm. Airey & Son (Leeds) Ltd.

MAGNET
JOINERY LIMITED

★ *Write for FREE Literature to:—*

WHITLEY ST., BINGLEY, YORKS. *Phone:* Bingley 3547 (3 lines)
LOVE LANE, ASTON, BIRMINGHAM. *Phone:* Aston Cross 3291 (3 lines)
LONDON RD., GRAYS, ESSEX. *Phone:* Tilbury 77 (5 lines)

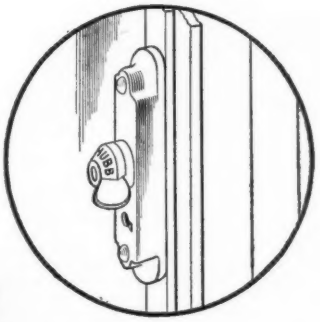
ITEM: One door lock!



JUST AN ITEM. But it can make all the difference to your client—between security, for instance, and serious loss. Most people come to us in the end—it may be too late—for a lock they can rely on. Because Chubb locks are the outcome of a policy of continuous research to ensure the utmost security. So if you are tempted to make small economies by using weak, anonymous locks on back and front doors, please think again, and think of Chubb.

ANOTHER LITTLE ITEM

A recent example of our policy which may be useful to you is a simple lock for securing metal-framed windows. Please ask our representative to call and give you details of these and other Chubb security devices.



specify CHUBB locks

REGISTERED CHUBB LONDON TRADE MARK

CHUBB & SON'S LOCK AND SAFE CO. LTD. 40-42 OXFORD ST. LONDON W.1
TELEPHONE MUSEUM 5822

door frames and metal trim

FOR THE BUILDING INDUSTRY

Door frames — skirting — corner beading — picture railing — window lining sub frames. Sankey make them all, to British Standard specification, and have had years of experience in this type of work.

A comprehensive range of stock sections is carried and we are anxious to co-operate in every way with architects and builders.

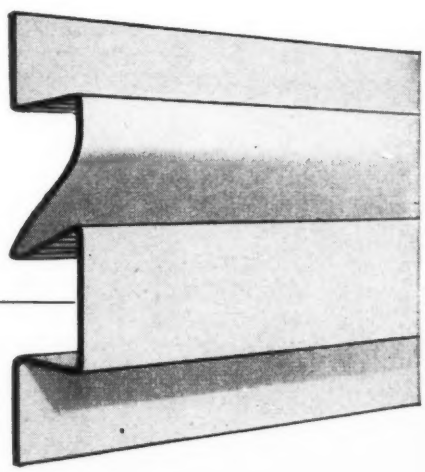
Full details and prices on application.

ASK **Sankey** OF WELLINGTON

JOSEPH SANKEY & SONS LIMITED

HADLEY CASTLE WORKS, WELLINGTON, SHROPSHIRE.

Phone: 500 WELLINGTON. Telegrams: SANKEY, WELLINGTON.



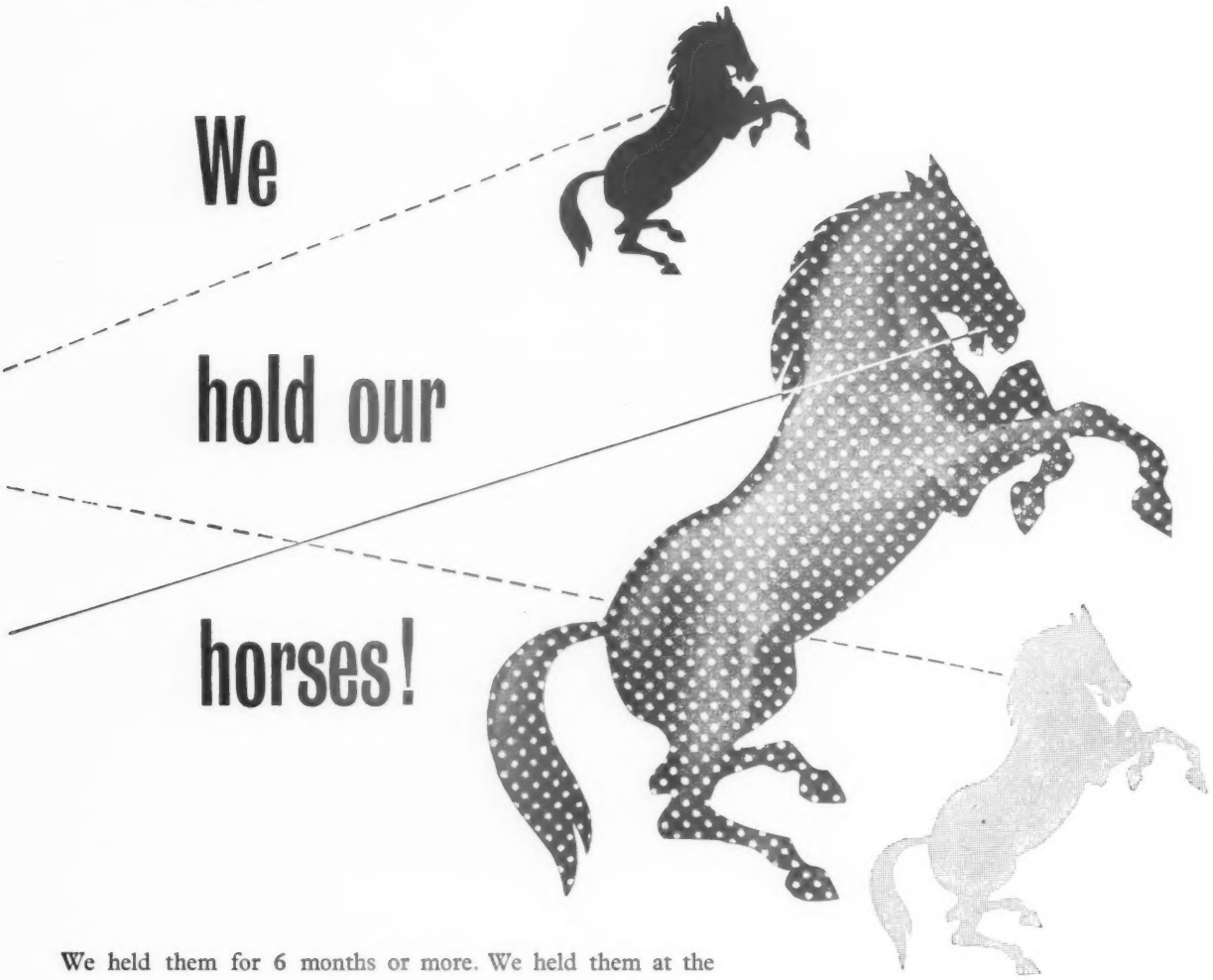
LONDON OFFICE:

ULSTER CHAMBERS, 168 REGENT STREET, W.1.

Phone: REGENT 3261. Telegrams: PERMEABLE PHONE LONDON.

Watching your interests . . .

We hold our horses!



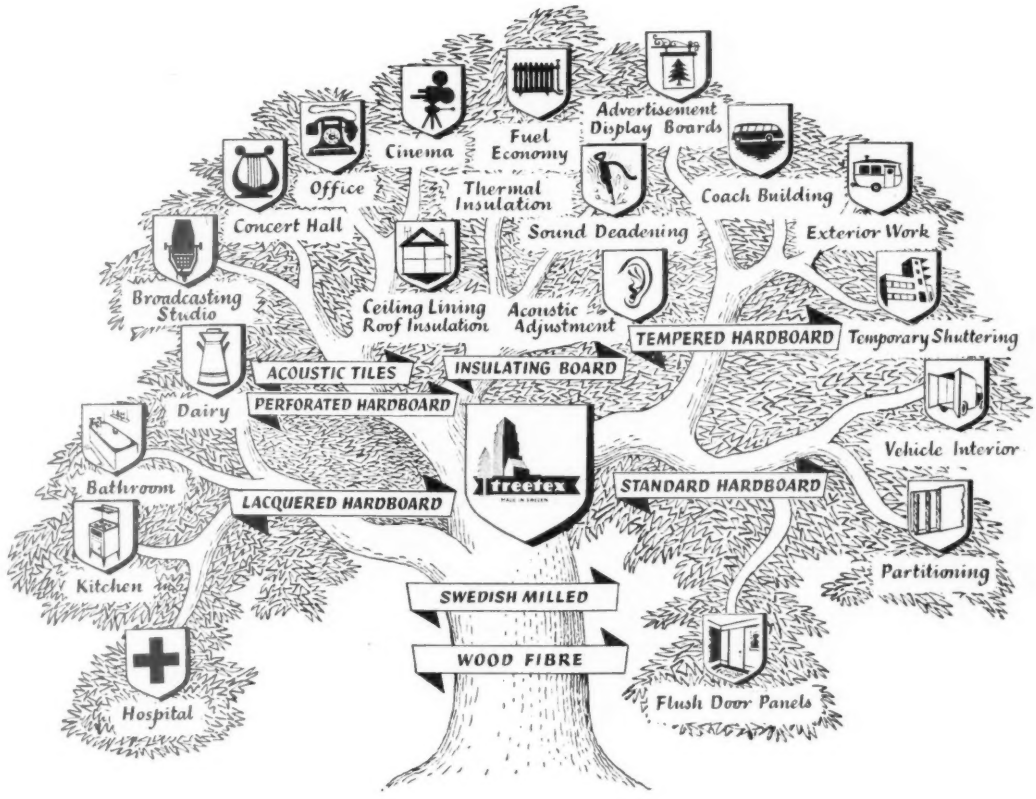
We held them for 6 months or more. We held them at the price of not being first in the field with plastic emulsion paint. But we weren't just sitting back. We were *grooming* our dark horse, giving it a preliminary canter over the Course, putting it through its paces, checking its stamina and performance, until we *knew* we had a winner. So that when PAMMASTIC put in an appearance, it went way out in front — to lead the field as Blundell products have done for nearly a Century and a half.

As the hand that wields the brush rules the Estimate, Blundell's PAMMASTIC is a particularly timely contribution. This plastic emulsion coating cuts labour costs because it . . . requires no primer or undercoat . . . is as quick and easy to apply as distemper . . . dries in under two hours—enabling the second coat to be applied without delay . . . takes only two coats to cover the most contrasting surfaces. What's more; Pammastic cuts labour maintenance costs too, for it lasts indefinitely. *For a brilliant enamel or soft eggshell enamel finish, the recommended complementaries to Pammastic are Blundell's* Pammel *and* Pammelette.

BLUNDELL PAINTS

BLUNDELL, SPENCE & CO. LTD · *MAKERS OF PAINTS SINCE 1811* · 9 UPPER THAMES ST. · LONDON · E.C.4 & HULL
And at Glasgow, Liverpool, Newcastle, West Bromwich, Bombay and Sydney. Associated Company at Valparaiso.

THE FAMILY TREE OF TREETEX



Motto: "STRENGTH, DURABILITY, QUALITY"

Ask first for TREETEX

the board for modern building

TREETEX LIMITED, 47-48 PICCADILLY, LONDON, W.I. · *Telephone:* REGent 1394

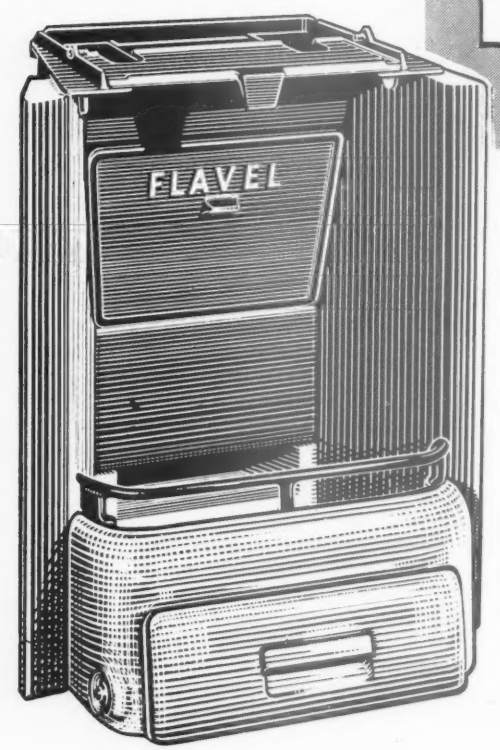
FACTS and FIGURES

★ A standard Newbold grate with deepening bar, and gas burner for easy lighting. A safety plate can be provided as an extra. Standard boiler 12″ × 6¾″ × 5″ in C.I., Steel or Copper, tapped 1″ B.S.P., reversible to permit R. or L.H. side connections.
Flue-way under boiler 2″ high with 1½″ vertical flue-way formed by boiler and steel casing.

★ Damper frame. Removable for cleaning back flue and access to boiler manlid.

★ Damper. 4½″ opening for chimney sweeping.

TYPICAL PERFORMANCE FIGURES WHEN BURNING COKE AS A FUEL	
Capacity of Grate	0.50 cu. ft.
Rate of Burning	0.8—3.0 lb. per hr.
Radiant Output	Max., 8,000 BTU/hr.
Hot Water Output	Max., 14,000 BTU/hr.
Overall Efficiency	51% with max. hot water. 46% with max. radiation.



The unit provides adequate space heating and a constant supply of hot water. It is self-contained and fits into a brick opening of not less than 22¾″ wide by 25½″ high by 13½″ deep.

the
FLAVEL
BOILER SET

FLAVELS *of* LEAMINGTON

• MAKERS OF FINE COOKING AND HEATING APPLIANCES SINCE 1777 •

Design in Timber

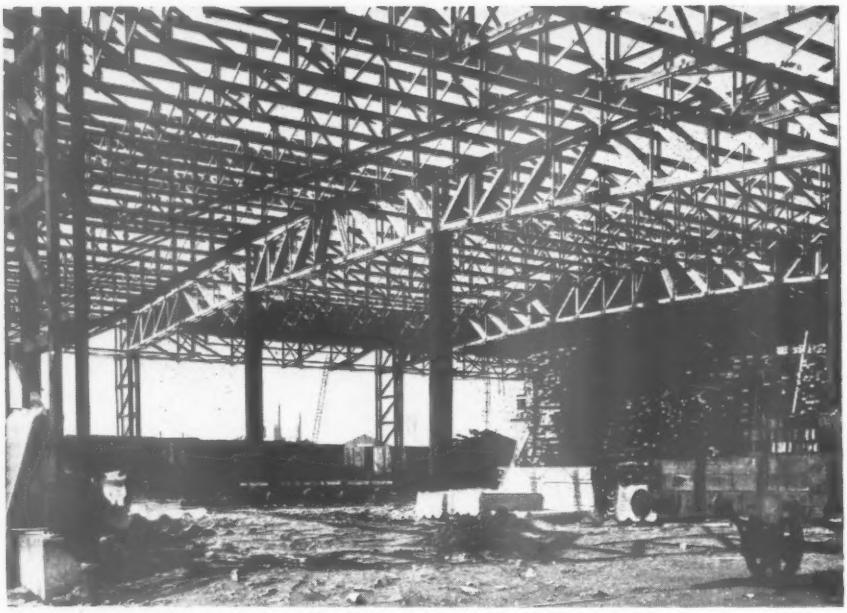
TIMBER STORAGE BUILDING AT HULL

Design & Fabrication of Structural timber-work by :—
BOLTWOOD ENGINEERING LTD., CHESTERFIELD.

Architects :—
GELDER & KITCHEN, F/L.R.I.B.A., HULL.

Main Contractors :—
HOULTON & GRANT LTD., HULL.

Illustration by courtesy of :—
HORSLEY, SMITH & CO. LTD., HULL.



"CORONATION SHED" at Victoria Dock, Hull, erected for Horsley, Smith & Co. Ltd. Illustration shows timber framework in course of erection.

This fine timber-framed storage building is 440 ft. long by 163 ft. wide, with 25 ft. clear minimum working height. A triple centre rail track under cover serves 16 stacking bays each approximately 60 ft. by 55 ft. Valley gutters have been eliminated in the design and there are only 14 internal columns

THE LATEST TECHNIQUES IN TIMBER JOINTING AND STRUCTURAL DESIGN HAVE BEEN EMPLOYED THIS BEING MADE POSSIBLE BY THE INCLUSION OF THE FOLLOWING TIMBER CONNECTORS:—

'TECO' — DOUBLE BEVELLED SPLIT-RING TIMBER CONNECTORS

'TECO' — HEAVY DUTY SHEAR PLATES

'BULLDOG' — CIRCULAR TOOTHED-PLATE TIMBER CONNECTORS

AND

'MAF' TRIP-L-GRIP — FRAMING ANCHORS FOR SECONDARY CONNECTIONS

EASY TO INSTALL ● LESS TIMBER AND HARDWARE REQUIRED ● SIMPLIFIES FABRICATION

Timber Connectors and Shear Plates made to B.S.S. 1579.

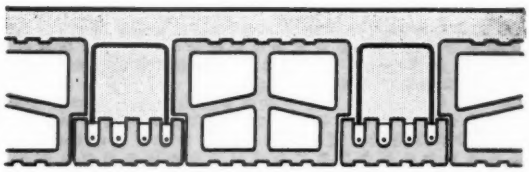
MACANDREWS & FORBES LTD. 2 CAXTON STREET, LONDON, S.W.1 *Tel: ABBey 4451/3*

If you are interested in designing timber structures on an engineering basis, using this timber connector technique, apply for a FREE copy of "DESIGN MANUAL FOR TIMBER CONNECTOR CONSTRUCTION."

POINTS ABOUT *Stahlton*

4 FIRE RESISTANCE

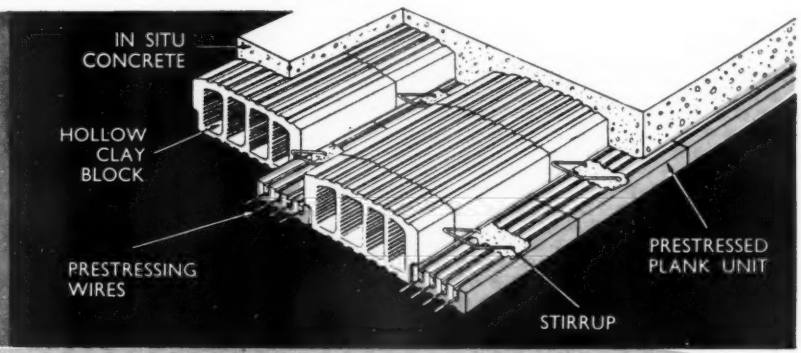
Seven prestressed concrete floors have been recently tested by the Department of Scientific and Industrial Research. On this occasion the average time for fulfilling test conditions was 1 hour and 17 minutes; the Stahlton prestressed floor withstood the test for 1 hour and 48 minutes. Buildings which are covered by a fire test of one hour in the Model Bye-laws include all domestic buildings, warehouses not exceeding 125,000 cubic feet (except under special conditions) and public buildings not exceeding 75 ft. in height nor 7,500 sq. ft. in floor area.



***Stahlton* Prestressed Floors** have in addition to prestressing and fire resistance the advantages of light weight and adaptability. The principal component is a factory made earthenware Plank containing high tensile steel wires embedded in vibrated mortar. Hollow clay filler blocks are placed between Planks to give a uniform clay soffit, which is admirable for an applied plaster finish. The Floor is then concreted in situ to the required thickness. Shuttering is avoided, only temporary props at 5ft. centres are necessary. Stahlton prestressed floors have so far been developed and tested for spans up to 35ft. No special handling is needed for Stahlton, contractors can erect under normal conditions.

other points about Stahlton include

SPANS UP TO 35 FEET
NO SHUTTERING
PRESTRESSING
ADAPTABILITY
EASE OF ERECTION
ECONOMY
INSULATION (Sound & Thermal)



Copies of other advertisements in this series available upon request to...

COSTAIN CONCRETE CO. LTD.

1 Wandsworth Road, London, S.W.8. *Telephone:* **Reliance 5611**

Cowbridge Road, Bridgend, Glamorgan. *Telephone:* **Bridgend 961**

Stahlton Lane, Southend Arterial Rd., Childerditch, Nr. Brentwood, Essex. *Telephone:* **Herongate 317**

Coltness Factory, Newmains, Lanarkshire. *Telephone:* **Wishaw 880**

R. Costain & Sons (Liverpool) Ltd., Barlows Lane, Liverpool 9, Lancs. *Telephone:* **Liverpool Aintree 4141**

260/17

A New Old Fashion

NOT so long ago, when prefabrication was wished upon us as the solution to the Housing problem, the word "traditional" became almost a term of abuse, but at least it was used with a knowledge of its meaning.

Now what are we to make of a recent statement by our Parliamentary Secretary to the Ministry of Housing and Local Government? "A 'new tradition' house", he says, "is the new name for a non-traditional house".

What, indeed! Can method or design be both new *and* traditional? Either may find favour, but let us at least pay to each the compliment of distinguishing it from the other.

The new provides us with the excitement of a venture into what must be, to some extent, the unknown and the untried, for the new is necessarily the experimental. The satisfactions to be derived from the traditional are of a different order. Here we have the sense of security of the known and the well-tried. When we follow tradition (and how closely knit in our common speech are the verb and the noun) we tread in the firm steps of those who have toiled before us. It is of the essence of tradition that we do not have to make our own.

What was once new has made the tradition of today, yet not all new things become, in the fullness of time, secure traditions. Those which have value and meaning for us now are but a handful of the activities of the past, for most novelties fail to stand the test of time and the need for adaptability to changed conditions.

We can neither make the traditions of today, nor consciously mould the traditions of tomorrow. Only as those who come after us accept or discard, repeat or supersede, the new things of today, will traditions be established.

"New traditional"? Surely not.

(Reprinted from 'The Brick Bulletin')

Issued by The National Federation of Clay Industries, London, W.C.1

WOODBERRY DOWN PRIMARY SCHOOL *No. 4 of a Series*

FOR LONDON COUNTY COUNCIL

Architect:
ARCHITECT TO THE COUNCIL

General Contractors:
Messrs. GEE, WALKER & SLATER LTD.

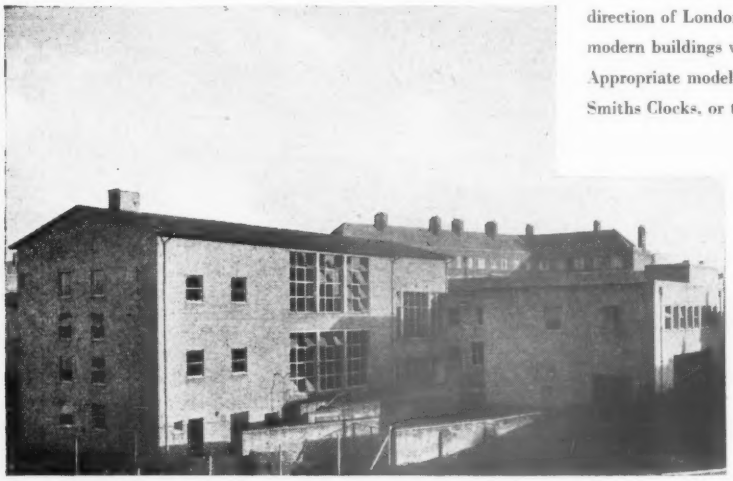
Electrical Sub-Contractors:
Messrs. BARLOW & YOUNG

Time by SMITHS

Mural on Staircase

The new Woodberry Down Primary School, constructed under the direction of London County Council, is another of the many modern buildings where Smiths Clocks have recently been installed. Appropriate models can always be selected from the wide range of Smiths Clocks, or they can be made to the Architect's design whenever desired.

Installations range from extensive Master Clock Systems incorporating Interior and Exterior Clocks, to the limited requirements of smaller offices.

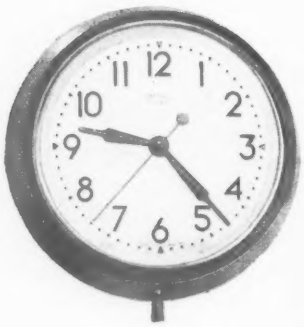


General view of School

Entrance to Assembly Hall

STAINES

One of the many attractive Smiths Wall Clocks which are available. Flush fixing octagonal oak or walnut case. 16" dial.

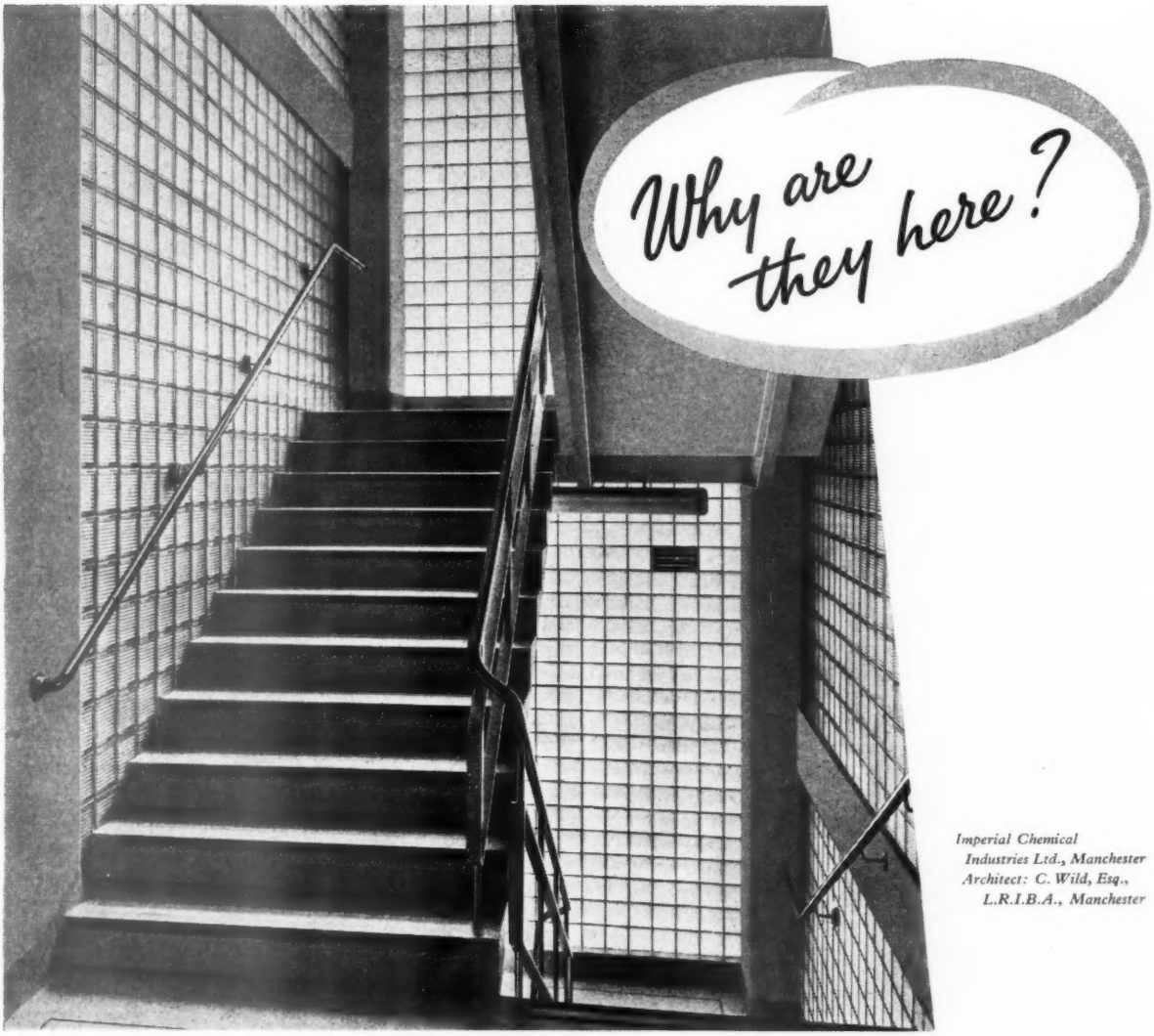


DELHI

In three sizes Delhi Minor, 5½" dial, Delhi Medium, 9" dial and Delhi Major, 12" dial. Ivory or Walnut moulded case.

SMITHS ENGLISH CLOCKS LTD., LONDON, N.W.2

The Clock & Watch Division of S. Smith & Sons (England) Ltd.



Imperial Chemical Industries Ltd., Manchester
Architect: C. Wild, Esq., L.R.I.B.A., Manchester

"INSULIGHT" HOLLOW GLASS BLOCKS

WERE USED BECAUSE . . .

This staircase abuts on to a very narrow well in the centre of the building. Had ordinary transparent windows been used to light it, the visual effect would have been dull, and even unpleasant; moreover the lighting in the stair well would have been poor.

By using "INSULIGHT" Hollow Glass Blocks, the architect has given the stairs a good spread of evenly diffused light, and greatly improved their appearance.

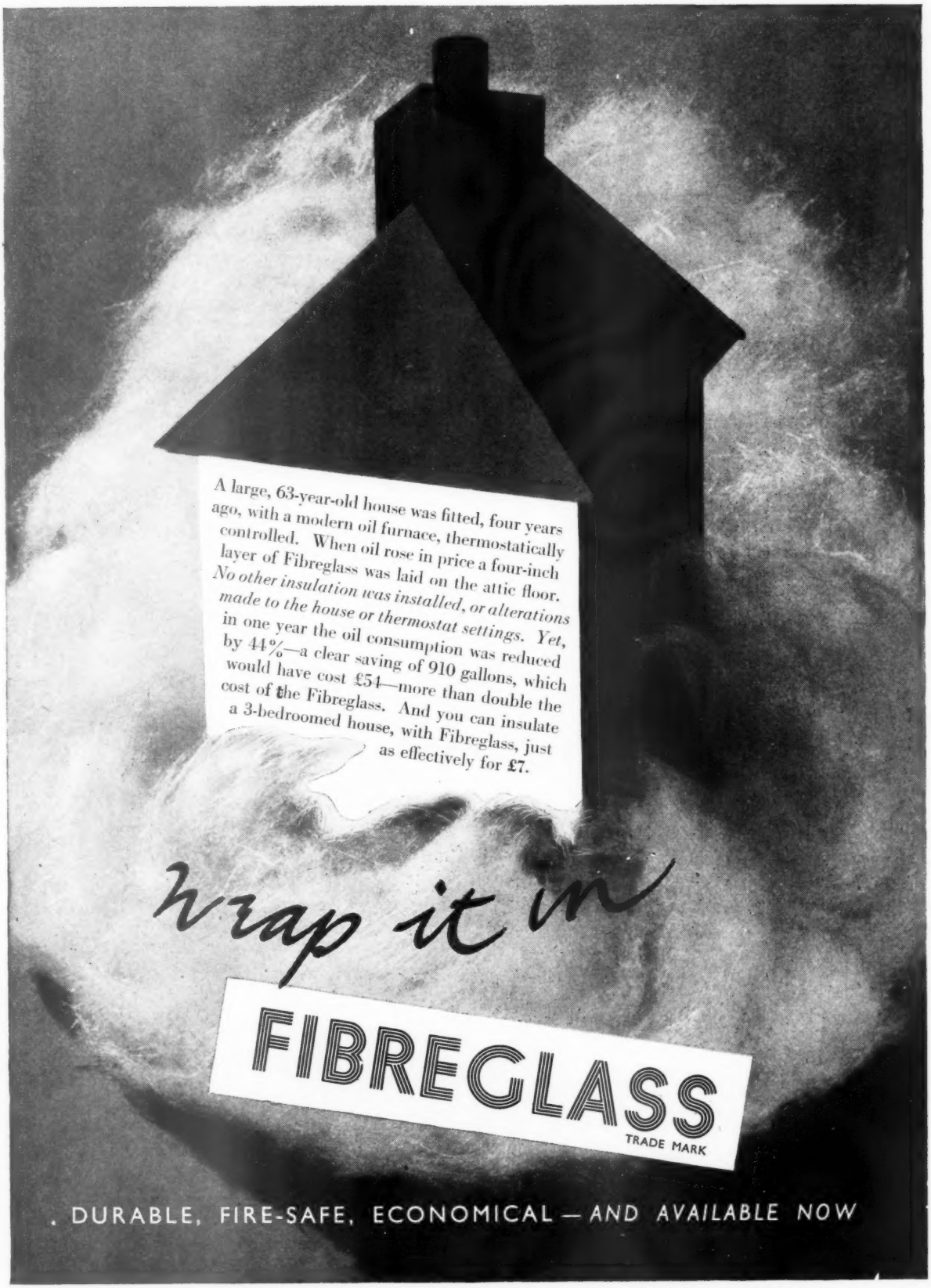
Consult the Technical Sales and Service Department at St. Helens, Lancs, or Selwyn House, Cleveland Row, St. James's, London, S.W.1. Telephones: St. Helens 4001, Whitehall 5672-6.

Send for the free booklet giving fixing details for "INSULIGHT" Hollow Glass Blocks.

PILKINGTON BROTHERS LIMITED

Supplies are available through the usual trade channels. "INSULIGHT" is the British registered trade mark of Pilkington Brothers Limited

BRITISH GLASS PB HGB.2



Fibreglass Limited, Ravenhead, St. Helens, Lancs. (St. Helens 4224)

STEEL-FRAMED GLASS PARTITION UNITS

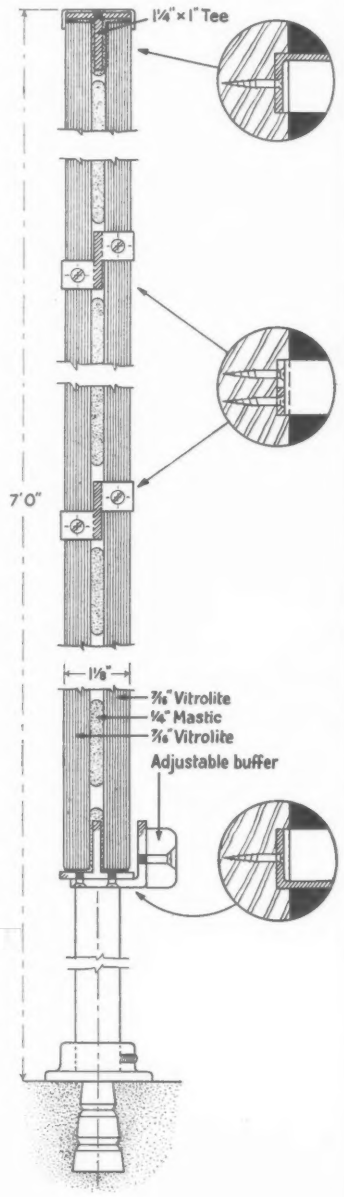
for W.C. and other Cubicles

The properties of 'Vitrolite' Glass, which render it ideal for hygienic wall-facing, are fully utilised in the design of these units. Consisting of two thicknesses of 'Vitrolite' assembled in a steel frame, they facilitate the application of a permanent, impervious finish throughout a range of cubicles. They can be used for many purposes where double-sided intersecting partitions are required.

HYGIENIC
Impervious to moisture, grease and chemicals. Easily kept bright and clean by the occasional application of a damp cloth.

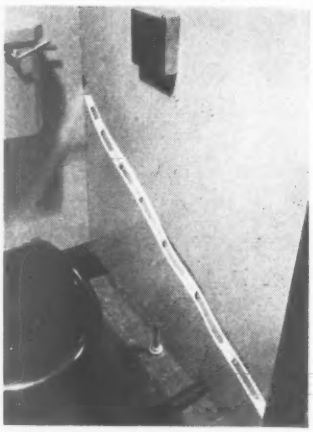
CANNOT BE DEFACED
The hard, glossy surface cannot be permanently disfigured with pen or pencil.

ECONOMICAL
A first-class job at a very moderate cost.



Supplied in any size in all 'Vitrolite' colours—White, Black, Green, Green Agate, Ivory, Primrose, Turquoise, Pearl Grey, Eggshell and Cream. Technical advice and drawings available on request.

CLARK'S FOR GLASS



The specimen partition illustrated on right showing method of construction, may be examined at The Building Centre.

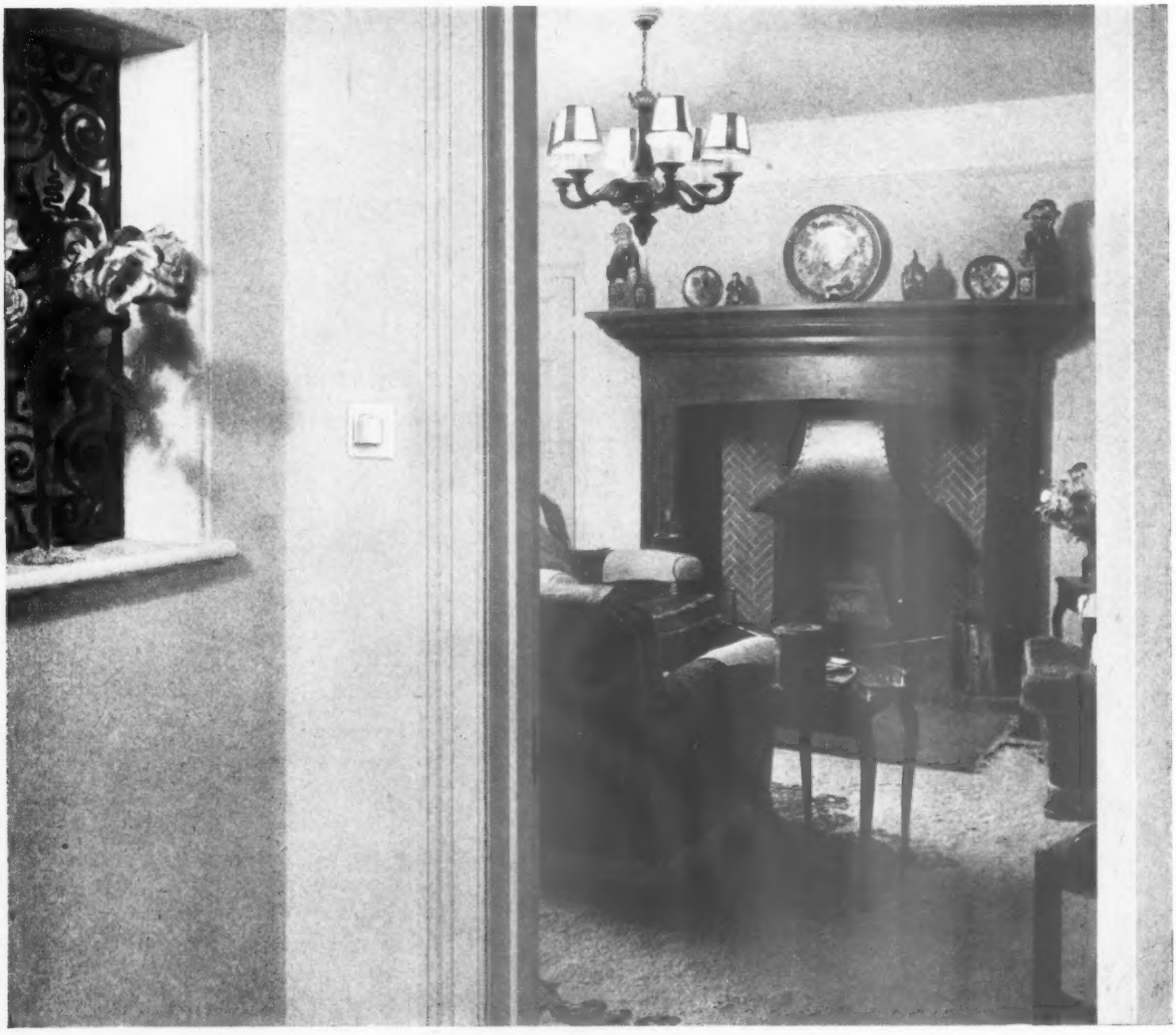
JAMES CLARK & EATON LTD

Glass for all Structural and Decorative Purposes

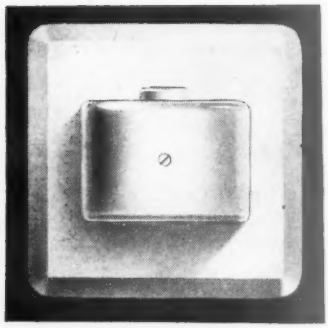
SCORESBY HOUSE, GLASSHILL STREET, BLACKFRIARS, LONDON, S.E.1

Telephone: WATerloo 8010 (20 lines)

Branches:— CANTERBURY - BOURNEMOUTH - EASTBOURNE - READING - OXFORD, (H. Hunter & Co.)



Dignity



The simple, attractive design of Ediswan Surrey switches blends discreetly with gracious interiors of period or contemporary homes. These efficient switches with their unusual sliding—bar switch—action are being specified by discerning Architects everywhere. Send now for a catalogue and sample and see for yourself the advantages of the Surrey switch.

EDISWAN

RANGE OF ELECTRICAL ACCESSORIES

A catalogue and price list of the complete range of Ediswan Electrical accessories is available on request.

E 31

THE EDISON SWAN ELECTRIC COMPANY LIMITED

155 Charing Cross Road, London, W.C.2, and branches.

Member of the A.E.I. Group of Companies

Flooring Standards by **HOLLIS**

MANUFACTURE

Every piece a Masterpiece

Ten thousand blocks may be required to complete your next flooring contract. It may be one hundred thousand. 10,000-100,000 or 1,000,000 —it makes no difference. HOLLIS Wood Blocks are manufactured to precisional standards and every piece in a HOLLIS floor is, in fact, a masterpiece.

Accuracy in machining must be preceded by skilful buying and selection of first class material. Manufacture is followed by further selection to discard anything below standard. Only then are we satisfied ourselves—only thus can we satisfy ARCHITECT, CONTRACTOR and CLIENT, and so maintain our traditional standards, now more than 60 years old.

Following on from manufacture we provide the HOLLIS SERVICE in and after installation—to the same high standards and Country-wide in scope.

STAGE 1
Truing and Thicknessing.

STAGE 2.
Tongued and Grooved Strips.

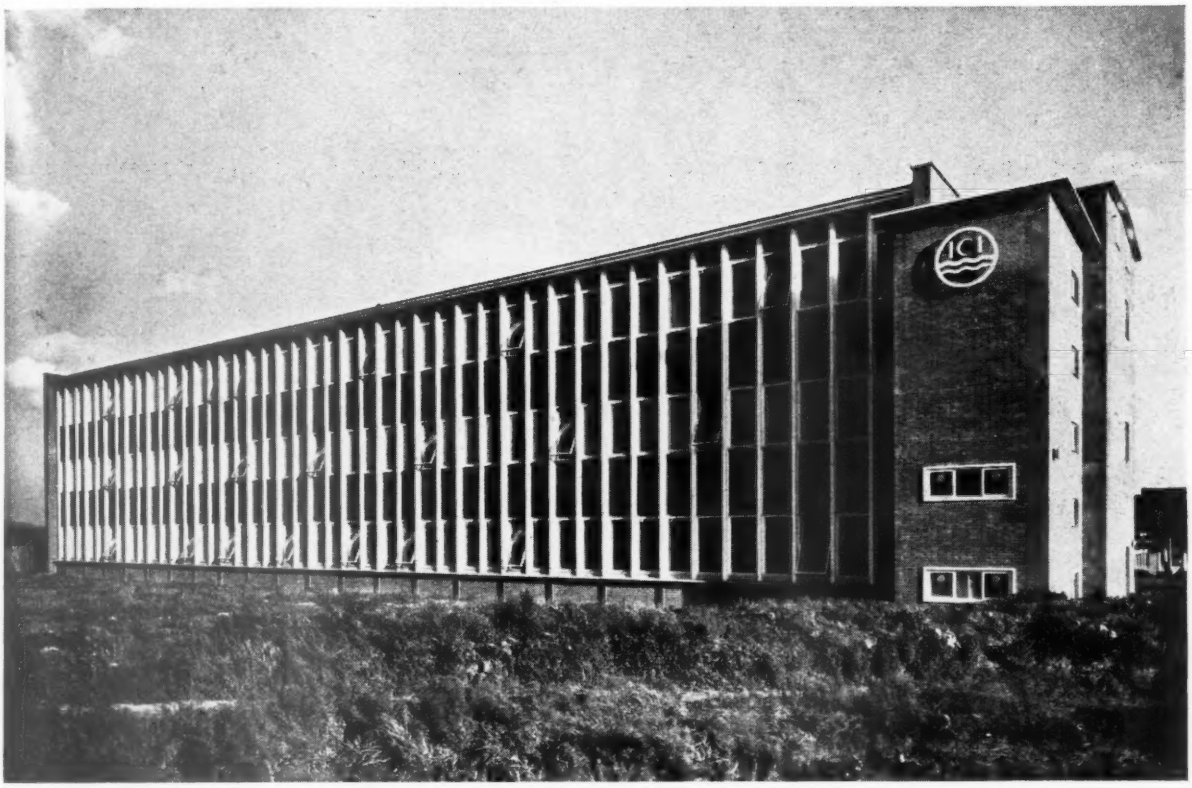
STAGE 3.
Final Product with 'Hairline' Jointing.

WOODBLOCK · HARDWOOD STRIP **HOLLIS BROS LTD** AND PARQUET FLOORING

HULL : CRAVEN HALL. *LONDON :* 150 HOLBORN, E.C.1

LEICESTER : ULVERSCROFT ROAD *BIRMINGHAM :* CAMBRIDGE STREET

Approved Contractors for **SEMASTIC** *Decorative Tiles* (Product of a Dunlop Company.)



NEW LABORATORIES AT WELWYN GARDEN CITY FOR THE RESEARCH DEPARTMENT, I.C.I. PLASTICS DIVISION

Architect: E. D. Jefferiss Mathews, Esq., O.B.E., F.R.I.B.A. of Messrs. J. D. Douglass Mathews and Partners
General Contractors: Holland & Hannen and Cubitts Ltd.

Courtesy of Borough of Southgate. J.T.W. Peat, F.R.I.B.A., Engineer and Surveyor.

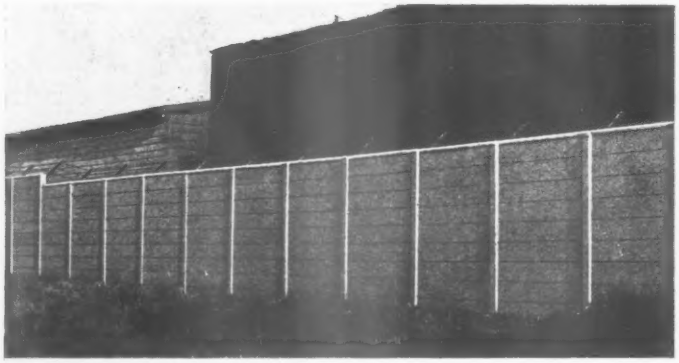
BELL and WEBSTER

Ltd., Essex Road, Hoddesdon, Herts.
Telephone : Hoddesdon 3737/8

MANUFACTURERS AND ERECTORS OF ALL TYPES OF FENCING

- **ALL CONCRETE**
  Palisade (Pat. Applied for)
- **ALL CONCRETE**
  Post • Panel
- **CONCRETE POST**
  with • Chain Link • Timber

Recent contracts include :
Middlesex C.C., Southgate B.C., Herts C.C., Ilford B.C., B.E.A., Leyton B.C., Runcorn R.D.C., Willesden B.C., Newcastle-under-Lyme B.C., etc.



Panel Fencing at Enfield, Middlesex.

STENT PRECAST CONCRETE *Piles*

PRESTRESSED PILES

Prestressed Piles are a new development on which research will possibly not be completed for a long time. The STENT PRESTRESSED PILES so far produced have withstood practical tests better than most, and improvements are constantly being made. The advantages obtained are smaller scantlings, greater lengths, easier handling. The illustration shows a 14 in. × 12 in × 55 ft. long pile on a site where several hundreds were used most successfully.

STANDARD REINFORCED PILES

STENT H.I PILES maintain their long proven popularity. They are Reliable, Economic and Readily Available. In shorter lengths especially they will probably remain unchallenged even by the STENT PRESTRESSED PILE.
Stock sizes: 12 in. × 12 in. in lengths 15 ft. — 40 ft.
14 in. × 14 in. in lengths 15 ft. — 55 ft.

Available for Immediate Delivery

STENT PRECAST CONCRETE LTD

1, VICTORIA STREET, S.W.1
Phone : Abbey 2573 and 2416

Works : **DAGENHAM DOCK, ESSEX** *Phone : Rainham (Essex) 780*
Midland Agent : Fabian J. M. Jackson, M.In.B.E. M.I.Pl.E., Craddock St. Loughborough. *Phone : Loughborough 3781 and 3543.* Nuthurst Rd., Manchester 10 *'Phone : FAl 2623*

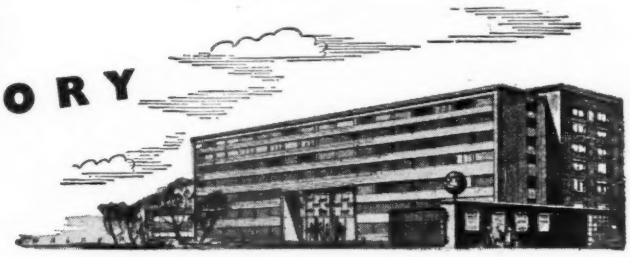
Specify STENT for the RIGHT Pile

See article on Stent Syke Hollow Pile on page 321 of March 11 issue.

PLIMBERITE

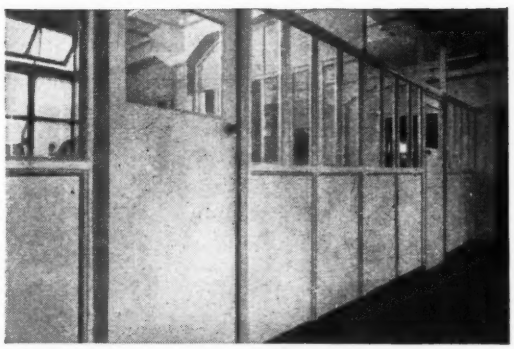
WOOD CHIPBOARD

IN OFFICE AND FACTORY



cuts costs of conversions

Speed up your conversion work with Plimberite and cut partitioning costs. A sheet (8 ft. x 4 ft. in thicknesses of ½" and ¾") of this versatile resin-bonded wood chipboard cuts readily to fit any angle, thus saving you time, trouble and money. Manufactured under heat and pressure to a density of 50 lbs/ cu. ft., Plimberite is rigid, flameproof, with good sound and thermal insulating qualities. Moisture movement and load tests, carried out on Plimberite by the Department of Scientific and Industrial Research prove its stability and strength. The surface of Plimberite, so ideal for painting, is also suited, because of its pleasing appearance, to staining, waxing and varnishing. To ensure best decorative results, ask for specifications of various finishes. Complete technical data on Plimberite is available from the manufacturers.

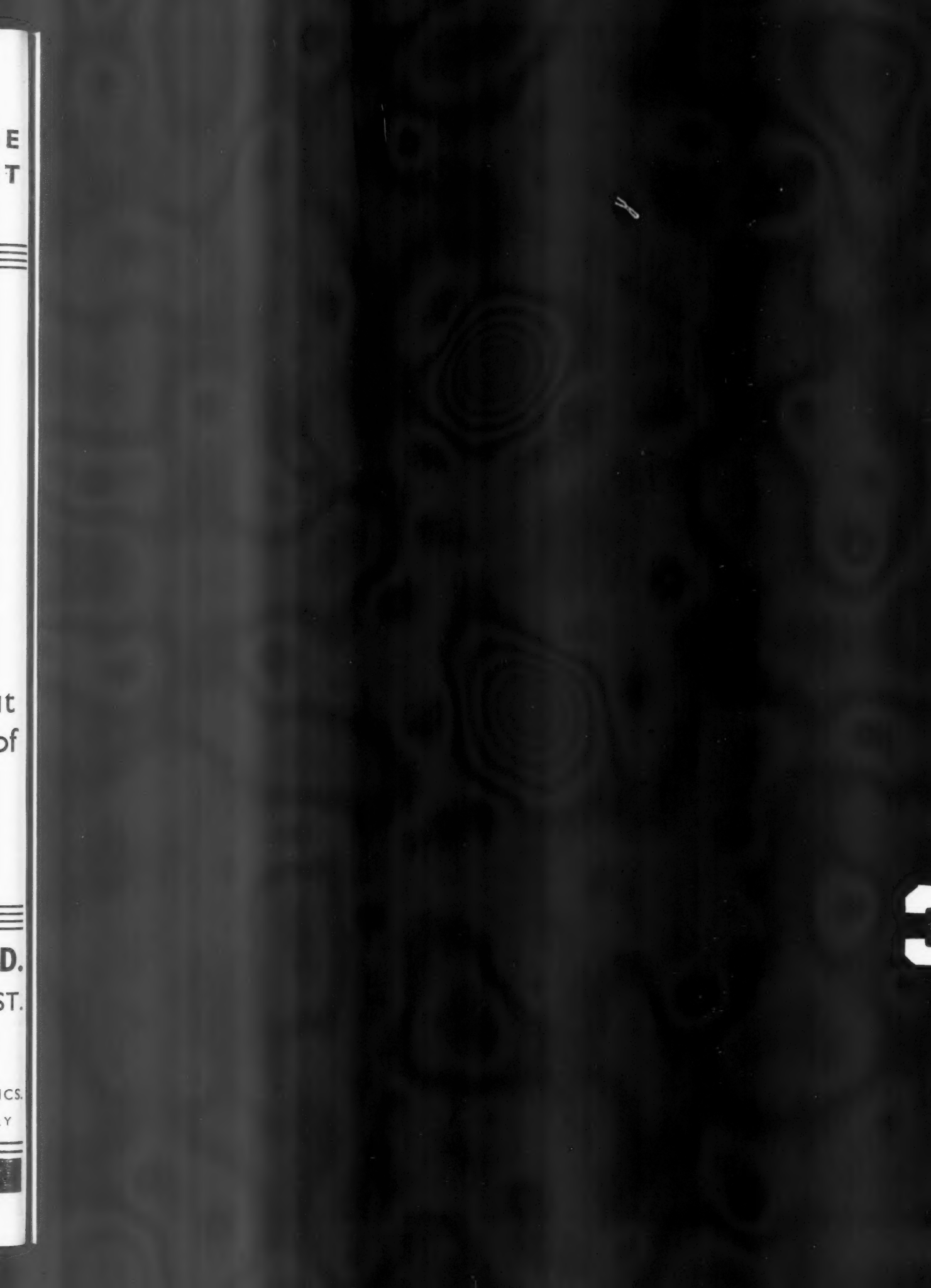


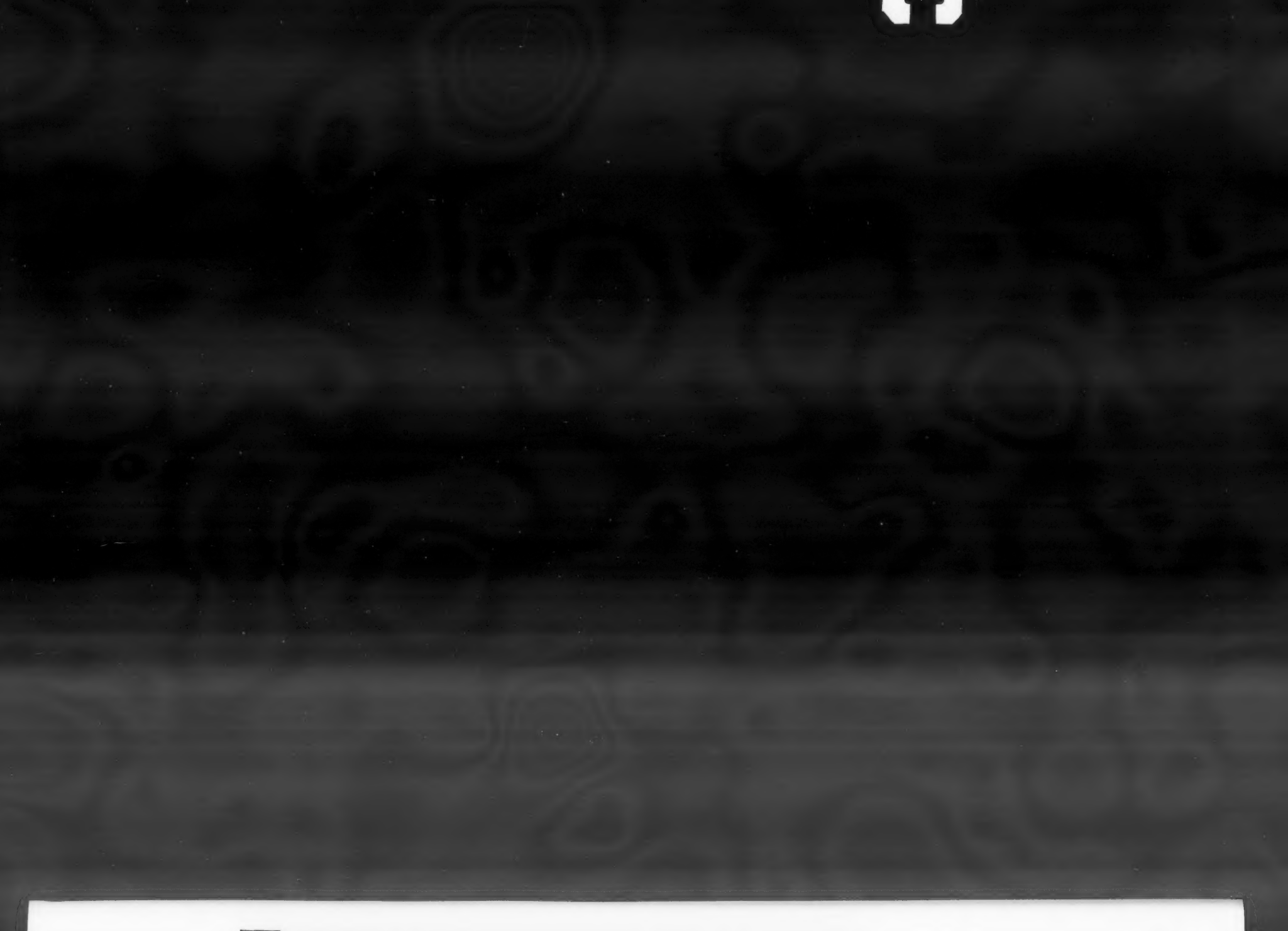
Offices constructed with ¾-in. PLIMBERITE and timber framing, by Messrs. Batger & Co., Confectionery Manufacturers, London, E.1.

See *PLIMBERITE* at:
THE BUILDING CENTRE
USE THE CENTRE
26 STORE STREET·W·C1

BRITISH PLIMBER LIMITED

19 Albert Embankment · London · S.E.11 · Reliance 4242





AJ

THE ARCHITECTS' JOURNAL

9, 11 & 13, Queen Anne's Gate, Westminster, London, S.W.1 Whitehall 0611

No. 3081 March 18, 1954 VOL. 119

Subscription rates: by post in the U.K. or abroad, £2 10s. 0d. per annum. Single copies, 1s.; post free, 1s. 3d. Special numbers are included in Subscriptions; single copies 2s. post free 2s, 3d. Back numbers more than 12 months old (when available), double price. Half yearly volumes can be bound complete with index in cloth cases for 25s. 0d.; carriage, 1s. extra.

REVOLT IN MANCHESTER

A student revolt seems such a commonplace state of affairs nowadays that one is inclined to think that there must be something wrong with a school that isn't having one, and ASTRAGAL is glad to hear tell that the architectural students at Manchester University are now joining the parties of dissent and thus putting their school on an equal standing with most other places where architecture is taught.

*

In any case, it appears that they really do have something to be up in arms about—Manchester, it seems, unlike any other university one can think of, from Cambridge to Budapest, has no development plan, and building goes on in a manner which can most charitably be described as piecemeal and undistinguished. Now that the design of the new Unions building has become known, the students have found themselves rather beyond the end of their tether, and the Architectural Students' Association, together with the Students' Union (who will have to use the place), have put their collective foot down and decided that it is time the University had some more inspiring architecture.

*

They want the University to hold a development scheme competition, as Sheffield did. This seems, under the circumstances, a modest enough requirement—at least they have not threatened to blow anything up or tar and feather any statues—and ASTRAGAL wishes more power to their elbows in any agitation they can get going.

SAMPLE OF UPGRADING

Those who admired John Steegmann's *Cambridge* may remember what he said of Magdalene's Mallory Court—" all gables and whitewash which has been not so much designed as contrived. . . . It is very artistic."

*

The whitewash is not what it was, but more lasting changes are now taking place there. David Roberts has been partly rebuilding and partly converting the old two-storey houses along the south side and has achieved just what the " townscape and more enclosure " school would like to see done in New Towns, and what every architect would like to see done in decayed residential districts under the " Houses: The Next Step " programme. The two or three houses are modern and traditional, with a touch of Denmark and a touch of Lionel Brett. The renovated Court will be charming and will break all the rules about street widths and space between dwellings.

DOORLESS DOORWAYS

Hot air squirted downwards from the lintel and extracted through a grating in the cill seems to be the latest shopkeeper's method of doing away with doors in the street frontage and at the same time keeping out cold draughts.

*

The first installation is in Dundee, which is probably as effective a testing ground as any, with cold east winds coming off the North Sea. The stronger the breeze the stronger the down draught, which may be something of a surprise to people who don't know what they are walking into, but the idea seems a good one. What with heated pavements to melt the snow (Canada) and radiant heaters to warm the heads of window shoppers (Belgium—and soon, perhaps, in Newcastle) the street will one day be as comfortable as the shop itself.

PENTONVILLE

ASTRAGAL has just had the fascinating, if rather moving, experience of lecturing to the more privileged prisoners at Pentonville. It was question time that was revealing, not least in the high proportion of educated voices heard . . . (confidence tricksters? embezzling lawyers? . . . architects who . . . well, never mind) . . . ASTRAGAL had, in his inimitable way, been holding forth on the whys and wherefores of modern architecture; the questions—and they came thick and fast—nearly all dragged the

subject back to the social and economic problems of housing, some of which were clearly only too familiar to the audience. Criminologists can read as much or as little as they like into this, but it was an impressive audience, intelligent and emotional.

*

Presumably a prison must never be a welcome home from home; however, an almost deliberate dreariness—apple-green dados, cream walls, whitewashed nosings, clanking key-chains—are all more likely to perpetuate bitterness than to cure it. More than one question was about the inefficient architecture of HM's over-crowded prisons. New prisons must by now be getting high on the priority list. Can the profession persuade the Prison Commission to enter into some discussion as to what will really be required ?

Frederick Gibberd has designed an office block, in conjunction with Felix Samuely (consulting engineer), for the National Dock Labour Board. It will be built on the Albert Embankment, opposite the Tate Gallery. The terrace at first-floor level (seen in this photograph of the model) will, it is hoped, be extended southwards as a link with a similar, but taller, office tower.

KEYS PLEASE

Post-war petty theft has made the problem of locking parish churches acute, a fact which was brought home to ASTRAGAL a few Sundays ago, when he experienced something like an anatomy of lockout at Stanmore. Here, the old church ruins and both Great and Little Stanmore churches were firmly barred at four o'clock in the afternoon.

*

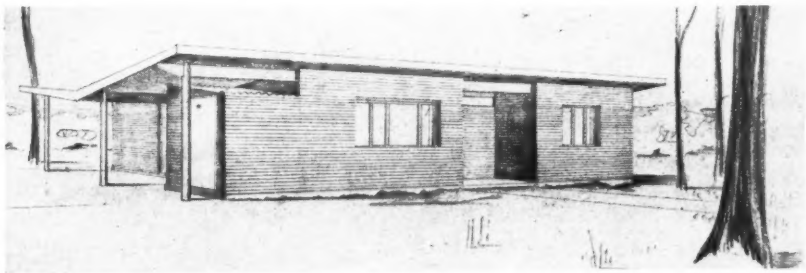
Locking the church is often a necessity, and my only grumble is that at neither place—and at many like them throughout the country—is there any indication of where the key can be found. In particular, locking Little Stanmore is rather like nailing up the National Gallery collection of 'Tiepolos', and here, as there was nobody at home in the Rectory, ASTRAGAL had to give up the search for lack of time.

*

An entrance fee, Holland's solution, is naturally an unwelcome idea, but is it really worse than locking the church blindly and then issuing a frantic appeal for restoration funds—especially, as in this case, where the building is a national monument?

WHAT'S IN A NAME

ASTRAGAL has some sympathy with Mr. Prince, who wrote to the JOURNAL (February 25) deploring the continual see-saw slogging matches between architect and engineer as to who should hold the reins in the Borough Office, and agrees with him that much of the trouble lies in nomenclature. George Orwell was not the first (nor was Sir Owen Williams the last) to point out that words tend to lose their proper meaning, become sloppily used, and eventually lead to active misunderstanding and conflict. An engineer (says Sir Owen) properly means no more than " the man who comes in at the beginning " . . . a title which could apply equally well to the planner or architect. Now we are in the midst of discussions about the changing functions (and title and training) of the Town Clerk, how about extending researches into wider fields? Is it dangerous or heretical to suggest that the best head of the department *may* be an engineer or *may* be an architect or a town planner or qualified surveyor? Don't call him any of these things if the title offends you—try and think up a new one—NOT, please, Director (Art and Technics).



This farm house, designed by Erno Goldfinger, may now be built at Turville Heath—by permission of the Minister of Housing and Local Government. As readers may remember, Wycombe RDC said that the proposed design " would be suitable among contemporary modern buildings in a residential area or preferably a New Town." It was not, said the RDC, their conception of " the appearance that should be given to a farm house—particularly in the Turville Valley." They were prepared, they added, " to consider an amendment which would provide for a pitched roof to the house." The client appealed against the decision of the RDC, which was acting on behalf of the Bucks County Council, and an inquiry was held. Harold Macmillan takes the view that " the erection of a building in a modern style should rarely be opposed."

South Bank Organ

The interior of the Royal Festival Hall has now been completed by the installation of the organ. The screen which has hitherto closed off the organ chamber and formed the back wall of the auditorium has been made to fold back, exposing the whole depth of the organ chamber to the audience's view—a bold innovation on the part of the LCC architects. Usually the organ is concealed either behind a grille or behind an arrangement of dummy pipes. At the Festival Hall only the formally grouped pipes immediately over the orchestra platform are dummies. They are designed to pull together the informal arrangement of real pipes, placed according to musical requirements, which can be seen behind, receding in depth. Their sculptural effect is emphasized by the skilfully planned lighting which throws the whole interior of the organ chamber into relief. (See also page 333.)

THE LEAF AND THE STONE

Christopher Tunnard is best known in England for his excellent book *Gardens in a Modern Landscape*. It may, therefore, surprise many to find him the author of a book on urbanism. However, for some years he has been associate professor, City Planning, at Yale University, and his new book *The City of Man** is a result of researches he did into the American city as a Guggenheim Fellow.

*

ASTRAGAL, who unashamedly (particularly at this time of the year) prefers the city pavement to the slush of the country lane, found Tunnard's frank reavowal of his faith in the city both refreshing and salutary. For too long we have been cowed by the city haters—Morris, Howard, Spengler, Mumford—who, seeing the city as only an evil thing, substituted for it a synthetic, "organic" or "Garden City." As Tunnard points out, the evil of cities is the evil of men, not of stones and concrete. City life has a reality of its own, it is tangible, it cannot be replaced by a substitute life in the fields. And however far advanced our technology may become people will always gather to enjoy urban life and the experience of being together. Significantly, the word citizenship is still used to describe our highest aim.

*

Though largely a thesis on the American City—incidentally it gives a first rate analysis of the origins and value of the grid iron pattern—Professor Tunnard's book covers the whole history of cities, supplementing his analysis with over 150 very good illustrations. ASTRAGAL feels it is a particularly timely book, when we are just beginning to realize that planning as we have known it is not enough. It just doesn't make beautiful cities. Tunnard restates the case for a city designer; a city planner, he says, must be a visual expert, an artist in the form of cities, aware of the contributions which others must make if we are to live in communities which achieve an integration of art and life. He must know what traditions mean; otherwise there is no point of departure. Not surprisingly Paris is his favourite city, though ASTRAGAL is surprised to find he does not give as much attention as might be expected to Rome.

ASTRAGAL

* The Architectural Press: 50s.

POINTS FROM THIS ISSUE

The Editors

PROFESSOR BOWEN AND THE RICS

AT the request of the RICS, we gladly give space in this issue (page 347), to an article by "Chartered Quantity Surveyor," in which criticisms are made of Professor Bowen's article in the series "Focus on You," (December 31). We welcome the semi-official statement of the purpose and function of the quantity surveyor which the article by "CQS" contains, but we regret that he does not say more about the relationship which that function and purpose bear to the present critical situation in building and building costs. For Professor Bowen's implication surely was that this situation has changed very markedly in the last few decades, while the method and scope of the quantity surveyor have remained much as they were in the last century.

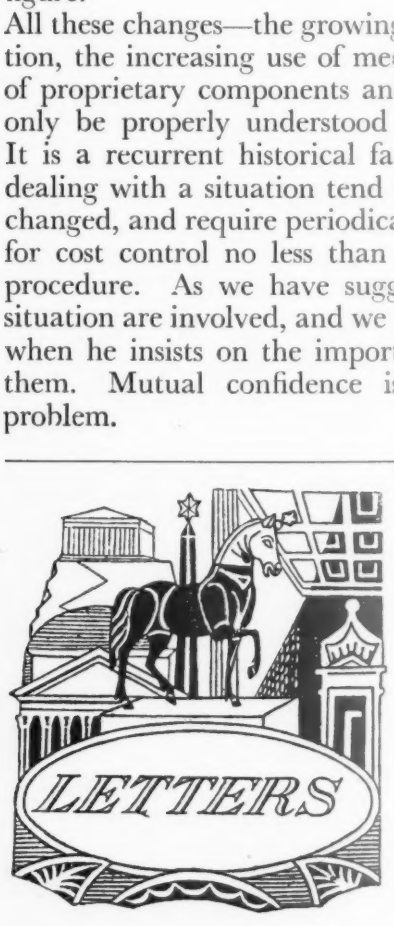
As an economist, Professor Bowen has been concerned to assess the part that building plays in the country's economy, and broadly his conclusion is that it is less effective than it should be. That is to say, society does not get the buildings at the cost and in the quantity that it has a right to expect. But he recognizes (and "CQS" would appear to agree) that all parties—client, architect, builder and quantity surveyor—are dependent on one another, and that no single one of them can be saddled with all the blame. So much is clear from Professor Bowen's article, in which all of us suffered adverse criticism. He was "rocking the boat" to show how cumbersome, slow and costly it is, not (as "CQS" suggests) to dis-unite the crew.

Criticisms of his article are answered by Professor Bowen on page 348; here we are concerned with the actual situation from which the dispute arises. If we interpret him correctly, "CQS" appears to suggest that the use of machinery and the organization of the labour force offer great (perhaps the greatest?) scope for building economy, and that competitive tendering provides the best inducement for builders to strive for efficiency in this field, and that competitive tendering can only be properly conducted on the basis of a bill of quantities. It seems to us that there are two main points to be made in this connection: first, the Girdwood Committee's findings, which "CQS" actually quotes, and which were mainly for competitive contracts, would seem to indicate that this inducement is far from sufficient; for the achievements in reduction of man-hours there reported, are not encouraging.

The second point is that labour organization and the use of machinery are precisely those aspects of building work that the present system of measuring and valuing does not reveal. This is what we should take the term " unsound cost control " to mean. It is only another way of saying that the architect who makes special efforts in his design to simplify and integrate the sequence of operations on the site finds his zeal very imperfectly represented in the bill of quantities.

" CQS " reminds us that the method of measurement is constantly revised, in consultation with builders, so that it shall be " brought up to date." But it is beginning to be remarked among architects that, over the past few decades, the prime cost item figures ever more largely in building contracts. The item represents proprietary components and methods of construction which are quoted lump sum by the supplier, and which are not customarily measured and valued by the surveyor. Yet his fee is still based on the total contract figure.

All these changes—the growing significance of labour organization, the increasing use of mechanical aids, and the extension of proprietary components and methods of construction—can only be properly understood as part of a changing society. It is a recurrent historical fact that conventions evolved for dealing with a situation tend to survive after the situation has changed, and require periodically to be revised, the convention for cost control no less than the convention for contractual procedure. As we have suggested above, all parties to the situation are involved, and we are glad to agree with " CQS " when he insists on the importance of good relations between them. Mutual confidence is vital to the solving of the problem.



J. E. N. Davis Chief organization officer, NALGO

F. E. Shrosbree, General Secretary, ABT

J. Edward Tyrrell, F.R.I.B.A.

W. Home, A.R.I.B.A.

John Leaning

" 12 Disappointed Students "

Philip Powell and Hidalgo Moya, A./A.R.I.B.A.

Kenneth Peers, B.Arch., A.R.I.B.A.

Wanted : A Negotiating Body

SIR,—Your interesting editorial in the issue dated March 4 lays down that the only effective way of protecting and promoting the well being of salaried architects is trades unionism, and you then strongly support craft as opposed to industrial unionism. You visualize the formation of a trade union of salaried architects " to negotiate with the authorities who employ them."

Apart from the difficulty that is likely to be experienced in launching a new trade union, it would be far from easy for such a body to negotiate with authorities who already negotiate with industrial trade unions in respect of salaried architects. New negotiating bodies are not easily established and invading established negotiating machines is usually unrewarding. The general view (in the words of the Terrington Committee on " recognition " in the post office) is that " the proper outlet for the expression of . . . dissatisfaction is within the trade unions themselves and not in the building up of a breakaway movement."

You write that NALGO " can only cater for one section of the salaried architects." In fact no one organization can in existing conditions cater for all sections of salaried architects. Take, for example, those in the civil service. There is comprehensive Whitley machinery in the civil service and standards are negotiated in relation to different professions. A new body which included large numbers of architects who are not civil servants would, I fancy, find it difficult to invade that negotiating field. NALGO is strongly represented on negotiating machinery relating to local government, the electricity supply industry, the gas industry, and the national health service—machinery which lays down salary scales and conditions of service for salaried architects. I do not understand your statement that the Law Society has formed an *ad hoc* trades union to negotiate for those of its members employed by the British Electricity Authority. I happen to be Vice-Chairman of the National Joint Managerial and Higher Executive Grades Committee for the electricity supply industry and Chairman of the officers' side, and that body has agreed salary scales, etc., which apply to solicitors. Three trade unions (including NALGO) are represented on the officers' side and there have been no negotiations with an *ad hoc* trades union, whatever that is, under the ægis of the Law Society.

What does NALGO offer the salaried architect in these services and what could a new trade union—BASA or what you will—offer him?

First, NALGO already does the negotiating and has done so for years. It has also had a great deal to do with issues like superannuation rights. The salaried architect is now subject to scales of salaries and conditions of service—office hours, holidays, sick pay allowances, travelling and subsistence allowances, car allowances, and so on. He may be critical of some of these things. If so, he can get them altered only through the negotiating machine and this spells NALGO. Further, he may disagree with his salary grading or the application of other conditions of service. He may appeal; but any appeal must be through a trade union represented upon the negotiating machine in electricity, gas and health. He has a personal right of appeal in the local government service; but the appeals committee comprises an equal number of local authority and staff side (NALGO) representatives.

Finally, if there is a difference which is not settled in the Whitley Council, action can be taken through the Industrial Disputes Order, 1951, to secure arbitration in the Industrial Disputes Tribunal. The Order provides that where there is machinery of negotiation a report to the Minister of Labour and National Service may be made only by a trade union represented on the negotiating machine. The individual cannot report a difference. Nor can a professional organization which is not a trade union, even if it is represented on the machine. Nor can a trade union which is not represented.

It is good that the need for effective trade unionism—which NALGO has preached for nearly 50 years—is now so generously recognized in your columns. It is less good that the idea of a new craft union is being preached. For this is likely to breed confusion and bring disappointment. Salaried architects in the services covered by NALGO will be well advised to look to that trade union to safeguard their interests.

J. E. N. DAVIS.

London.

The RIBA "Trade Union"

SIR,—It is excellent news that the RIBA is taking steps to find out the opinion of its members on the representation of salaried architects. I hope the questionnaire will show a large majority in favour of trade unionism.

As the ABT has been a trade union for 35 years and as architects have always been the largest category among its members, perhaps I may be allowed a comment.

It appears that Question 8—Are you in favour of having a trade union composed wholly or mainly of architects and approved by the RIBA—has been considered ambiguous. I have found that the first reaction of some of our members has been to answer "No," on the grounds that they are completely satisfied with the ABT and do not want another organization. I have had to point out to them that further recruitment would easily give a majority of architects in our organization and that the approval of the RIBA and an assurance of their support for our work, would undoubtedly bring such a position about. For these reasons I have advised our members to vote "Yes."

The ABT has always been ready to consider and discuss any proposals to increase its effectiveness as a trade union. But the essential first step now, before such discussions could be of value, is for a large number of architects to declare their desire for a union. I ask all those who have not already voted to do so.

F. E. SHROSBREE.

London.

SIR,—I believe that the interests of salaried architects will best be served, not by forming a new trade union, with its attendant difficulties associated with any new organization, but by adapting the existing machinery of the ABT, utilizing its experience and starting with the advantages of recognition already gained by this body, after long and arduous processes. This could be done by forming within the framework of the ABT separate sections for each profession.

I feel certain that if the ABT could feel assured of sufficient architectural membership, they would be quite willing to reorganize themselves in this manner. If this were done, allied professions, by virtue of their numbers only, would be an asset and not a liability as at present. In return for this support the increased strength and effectiveness of ABT would also react in favour of the allied professions.

J. EDWARD TYRRELL.

Hants.

Architects and Engineers

SIR,—In the architect-engineer power jostle in the borough office, P. Prince paints a depressing picture of antagonism (February 25). While I am well aware that this situation leaves much to be desired in many quarters, there are surely ample amicable relations between architects and engineers who are borough-bound.

The image of aggrieved engineers jagged in ignominy by the spur of the over-riding architect is rather a wild one. Indeed, I would make a very strong plea for the architect as the co-ordinator of the technical team that produces modern buildings with all their intricacies, but would stress that the inevitability of an aggrieved engineer, surveyor, or any other member is nonsense.

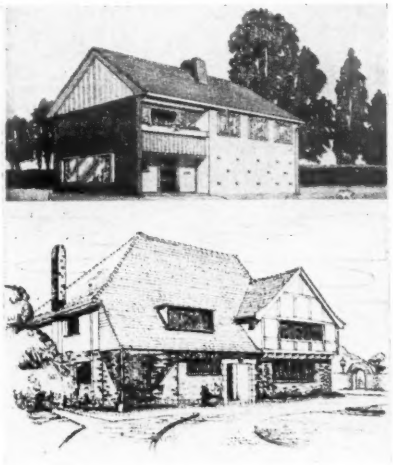
The architect alone of the design team has the overall picture in mind. It is he who by virtue of his trained imagination can visualize the sum total of the project, many important parts of which are interpreted by various technical members of the team. However, basically the credit goes equally to each and every member of the design team.

Edinburgh. W. HOME.

Ideal Homes 1953-54

SIR,—The frontispiece to the JOURNAL for February 25, 1954, makes one put the question: "Well, which *would* you live in?" As an architect, but above all, as a human being, I would, in common with the tasteless general public, prefer the "Tudorbethan"; for, after all, what makes a building a home but its spirit? Some delight as well as commodity and firmness (a doubtful presence in the "contemporary" of the two).

For why should people be expected to accept, in the name of modern architecture,



Top, the Berg house which was shown at the Ideal Home Exhibition in 1953. *Beneath it is the house that Berg would have shown at this year's exhibition if the electricians' strike had not prevented Olympia's "village" from being built.*

the boxiness, the self-consciousness, for the warmth and breadth (albeit bad imitation) of the Tudorbethan. Surely the latter has more of the free spirit and delight of the works of FLW or Neutra than the cliché—ornamental box above it.

Let me not be interpreted as an advocate of the imitation of the more cosy features of a byegone architecture, even though not such a sin as the imitation of the more sophisticated and often equally useless external features and apparatus of contemporary architecture.

So, dear AJ, when judging such matters as the above, let us not be misguided by the style of clothing of our buildings, let us first and foremost enquire into their inner spirit, lest we find ourselves encouraging yet more the new eclecticism in modern architecture.

JOHN LEANING.

Stockholm.

SIR,—*Re* your frontispiece of February 25. Were we clients and were offered either of the two houses shown, we should choose the Tudorbethan. We feel that first impressions are of great importance, and are sure that the contemporary house would greatly benefit from a better sketch. If this is typical of contemporary dwellings, then we are not surprised that there has been this step back to the "Olde Worlde."

Surely architects can do better than this—even for "spec" builders.

"12 DISAPPOINTED STUDENTS."

Sheffield.

Too Much Glass

SIR,—The use of large areas of glass in buildings is not necessarily, as "Maintenance Surveyor" feels (February 25), a "naïve cliché," any more than the use of large areas of solid external wall; nor need it be associated with discomfort or wasteful heating. We do not advocate glass for all outside walls, since there are obviously many cases where it would be quite inappropriate, but, before casting judgment, some of the advantages and economies of the glass wall must also be considered.

The heat loss through one glass wall cannot simply be compared with the loss through a wall with small windows. The area of outside wall compared with that of floors, ceilings and inside walls should also be considered in both cases. The glass wall gives better lighting, so that rooms can be made deeper, allowing more compact planning and less outside wall—or lower, with less space to enclose and heat; and if the glass wall faces the sun, letting through some of its natural heat, the cost of artificial heating can be further reduced. (In summer this heat can, of course, be controlled by allowing for proper ventilation and screening.) The already accepted practice of cavity wall construction can be combined with the growing practice of cavity glass construction, or double glazing. The additional first costs are usually outweighed by the combined savings in the cost of the heating installation and its running costs.

Unlike "Maintenance Surveyor," we know of those who, even during the recent cold spell, have been comfortable behind a glass wall and can appreciate the sensation of freedom and lightness which it gives. We think that it is one of the duties of an architect to inspire the spirit by his skill in using the æsthetic effects of any materials he finds suitable.

PHILIP POWELL AND HIDALGO MOYA.

London.

The City Skyline

SIR,—Arthur Ling says (AJ, March 4) that a critical moment has arrived when in London decisions must be made. Few would disagree, but it is useless to "prudently modify or cautiously preserve" in a crisis.

Certainly little is done even to alleviate the problems of London by a necessarily limited number of thirteen-storey obelisks. The dangerous, ugly corridor of Victoria Street is still with us; the gas works remain as rotund as ever. True, the strolling suburbanite or the camera fiend on Westminster Bridge may be uplifted, but they will not house the flat hungry dwellers of Pimlico nor pacify the angry motorist at Hyde Park Corner.

Mr. Ling admits that even the limited objectives of daylighting standards and carparking cannot be achieved without going upwards. How much higher we must build, then, to achieve the radiant city! If the 1947 Planning Act is a poor tool with which to achieve it, since we made it, we can throw it away, or, better still, sharpen it.

Building high is not an æsthetic end in itself, nor should its sole declared intention be the creation of meaningless vistas. It is possible by building high to the given densities to obtain freedom on the ground. Freedom on the ground is, for motorist and pedestrian alike, an escape from mutilation in the corridor street.

The best skyline ought to be the expression of an efficient ground plan. The contemporary solution of the urban floor plan can absorb the 10 per cent. of the old which is worth preserving and, at the same time, create a new skyline of endless variation, of series and rhythms and punctuations, of stops and escapes into space, not merely a concentration on the theme of vista.

KENNETH PEERS.

London.

RIBA

New Scale of Charges

A new scale of professional charges will come into effect on June 1. Particulars will be published in the April issue of the RIBA JOURNAL.

New Exam Rules

In future candidates for the RIBA's Intermediate and Final Examinations will be required to have reached the minimum ages of 19 and 21 respectively by the first day of the examinations.

This regulation, which will take effect from July 1, supersedes an existing one. Candidates were previously required to have reached the minimum ages by the closing date for application for admission to the examinations.

The RIBA Council have decided that as from January 1, 1955, candidates who do not pass in at least two of the following subjects of Part 2—B1 (General Construction), B2 (Theory of Structures), C (Hygiene and Specialized Requirements of Building) and D (Specifications and the Properties and Uses of Building Materials) will be required to take these four subjects again at a subsequent sitting.

MOW

Codes of Practice

Last week the Minister of Works, Sir David Eccles, was asked by Sir William Darling (Edinburgh S.) what changes were contemplated in the responsibilities of his department for codes of practice in building.

The Minister replied:—"In agreement with the professional institutions, the British Standards Institution are establishing a Council for Codes of Practice to be responsible for all work on codes of practice, including building construction and civil, mechanical and electrical engineering codes. The chairman-elect is Allan Stephen Quartermaine, past-president of the Institution of Civil Engineers.

"After March 31 the services carried out by my Department for the present Council for Codes of Practice for Buildings will be undertaken by the British Standards Institution.

"During the eleven years that this Council have worked under the ægis of my Department some 150 Codes of Practice, covering nearly every aspect of building, have been published and I should like to take this opportunity of paying tribute to the value of this work and expressing gratitude to the members of the Code and Drafting Committees whose voluntary service has made this achievement possible."

Fixed Price Contracting

Are the risks of fixed price contracting as real as the risk that the building trade may price itself out of the market? J. R. Bevins, parliamentary secretary to the MOW, is not sure that they are. He said this at the recent dinner held at the Park Lane Hotel by the National Federation of Plumbers and Domestic Engineers (Employers). "We must have incentives," he claimed, "not only for work people but also for employers. Too often I feel we tend to become the victims of our own fears when, by a bold stroke, we can contribute to the stabilization of prices and also encourage owners to build."

LMBA

Discussion on RIBA Form of Contract

Last week the LMBA (Central Area No. 1) discussed the RIBA Form of Contract at a lunch held at Derry & Tom's restaurant.

A correspondent writes:—It seems that the builders are no more familiar with the ins and outs of the form than most architects, for everyone seemed to think it would be wise to learn how to use the form before deciding how to alter it. At the first mention of "variations" the house rose to a man, and it was here that architect and client appeared in the poorest light. There was, in the builders' minds, a distinction between wilful variations, wherein the builder is kept hanging about while client and architect try to make up their "something" minds, and the hardly less embarrassing variations, which arise through the architect not knowing how things are done. All present seemed to favour the idea of inserting a clause in the contract attaching a penalty to avoidable variations, though they could not decide the basis on which this should be assessed. Figures ranging from 5 per cent. to 15 per cent. of the cost difference were put forward, but it was pointed out that the nuisance caused did not necessarily bear any relation to the difference in the final account, since architect and client could cause as much trouble by dithering over five as over five thousand pounds' worth of variation.

TPI

"Closer Liaison Wanted," says Lord Mancroft

Lord Mancroft spoke recently of the help that the RFAC and other bodies give in the production of "fine new architecture in our blitzed towns," and asked if the "machinery of control" was geared to assist them. Lord Mancroft, who was talking at the annual dinner of the TPI, at the Dorchester Hotel, asked: "Is there not, perhaps, room for a tidier co-ordination of views and advice, particularly in the early stages when the ideas of the developer are first taking shape, and before large sums of money have been expended?

"To my mind," he continued, "this is the critical stage when a closer liaison between all concerned with the problem of design and appearance might well do good."

SCOTLAND

Post-war Architecture

An Exhibition of Post-War Scottish Architecture is now on view at the Scottish Building Centre in Sauchiehall Street, Glasgow.

A correspondent writes:—The aim of the exhibition was to present a worthy picture of the work of Scottish architects to everyone with an interest in good building. It is clear from the quality of many of the exhibits and from the fact that some eminent Scottish architects are not represented, that this aim could have resulted in a first-class exhibition. As it is, the exhibits are unequal in quality, hung apparently almost at random, and the general effect is scrappy. Only about half the exhibitors complied with the special request for descriptive matter, such as details of interesting uses of materials, close-up photographs of interesting details, etc. Most of those who did comply and incorporated progress photographs and all sorts of detail provided exhibits of quite unusual value and interest.

Among the exhibits which achieve the desired aim are several examples of the work of Peter Tinto, for the new town of Glenrothes, including a proposed secondary school; J. L. Gleave's hospital at Alexandria, Dumbartonshire; and two schools by Walter Alison & Hutchison, one at Cardenden, Fife, and the other at Boness, West Lothian. Two designs for collieries prove that the National Coal Board has a care for the Scottish landscape—one at Glenochil in the Ochil Hills, the other at Kinneil, Clackmannanshire, which will have the first winding tower in Britain. Two restorations of old buildings in Aberdeen and St. Andrew's, by George Bennett Mitchell & Son and Walker & Pride, respectively, show a loving care for old Scottish stonework. Easily the most spectacular project is Rowand Anderson, Kininmonth & Paul's new airport at Renfrew, which is now nearing completion. This reinforced concrete building really proclaims its function and looks like an entrance porch to the skies. It was, however, only illustrated by a perspective sketch and a large and impressive progress photograph hung on separate walls. One could have wished for more details.

DIARY

Electrical Engineers' Exhibition. At Earls Court. Weekdays 10 a.m. to 7 p.m.
UNTIL MARCH 20

Changing Ideas on Colour with some Technical Implications. H. L. Gloag and D. L. Medd. At the RIBA, 66, Portland Place, W.1. 6 p.m.
MARCH 23

New lighting Installations. Series of short papers. At the Lighting Service Bureau, 2, Savoy Hill, W.C.2. (Sponsors: IES.) 6 p.m.
MARCH 23

The Arts, 1754-1954. Special Bicentenary Lecture. Nikolaus Pevsner. At the RSA, John Adams Street, W.C.2. 2.30 p.m.
MARCH 23

Gap-graded Aggregates in Vibrated Concrete. T. E. H. Williams. At the ISE, 11, Upper Belgrave Street, S.W.1. 5.55 p.m.
MARCH 25

Structural Honesty. Ove Arup. At 34, Bedford Square, W.C.1. (Sponsor: AA.) 8 p.m.
MARCH 25

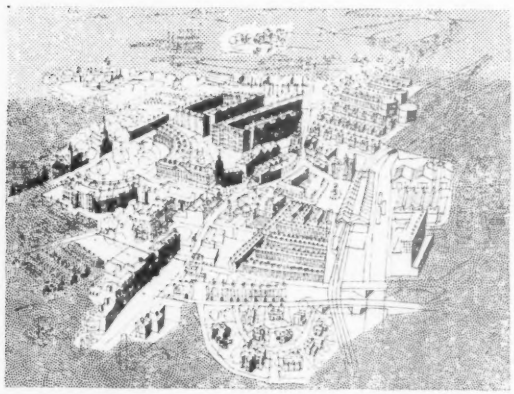
FESTIVAL HALL ORGAN: PRINCIPLES BEHIND ITS CONSTRUCTION

The Festival Hall organ has just been completed and will be heard by the public for the first time this week. The following statement has been issued by the LCC:—

The London County Council has always intended to provide a fine organ in the Royal Festival Hall. The auditorium was therefore planned with the organ as an essential element and this feature has conditioned many aspects of the main design. In considering the provision of an organ it is necessary in the first instance to ask "what type of organ" and "what position should it occupy in the auditorium?" Concert halls have been provided with various forms of organ. There is, for instance, the electronic instrument where the architectural problem is merely one of arranging for a console which can be movable, and suitable loud-speaker positions. There are also wind instruments of various kinds placed behind grilles or screened by arrays of pipes. The position of these organs has again produced a number of alternative arrangements; sometimes they have been split and placed on either side of the orchestra, and sometimes they have been placed above the orchestra reflector. The type of the organ and its positioning are both clearly related to the importance given to the instrument by the sponsors of the hall and its advisers and designers. The use of the organ in a concert hall has been a subject of dispute. It has been contended that organ recitals in themselves are very poorly attended; that the instrument is seldom used as a solo instrument, but is needed only in association with the orchestra for a limited number of works. These arguments usually conclude with the claim that the organ is best heard in the cathedral, which alone can give the most suitable acoustic conditions.

In 1948 the LCC appointed Ralph Downes as their organ consultant, and it is his refutation of these arguments and his conviction of the importance of the organ, both for solo and orchestral work, which have given rise to the position and the type of instrument now installed in the Festival Hall. Dr. Downes has insisted on an instrument with a wide range and beauty of tone. In his view the most favourable position for the organ is centrally behind the orchestra, where the full range can produce a unison of sound like that of the orchestra itself. He holds that wind-chests and their associated pipe arrangements should be placed where they can contribute most effectively to the best balance of sound and that any form of screening interferes with the qualities of their speech. This means that what is heard is also to a large extent displayed. It also means that the visual display of pipes arises largely from musical requirements. There are, of course, conflicts between these requirements and the requirements of the orchestra itself. It would have been desirable from a purely orchestral point of view to have reflectors immediately behind and over the orchestra. The necessity to place the organ in a central and dominating position made this an impossibility. On the other hand, the suspended canopy necessary for the orchestra was considered to be not entirely favourable to the organ itself. But there are many ways in which the organ and the auditorium are complementary—the one enhancing the other. For instance, the acknowledged clarity in the acoustics of the hall is well suited to an instrument which has been designed with great regard for clarity of tone. The freely arranged groups of pipes have an affinity with their setting in the auditorium itself, where again the forms have their origins in acoustic considerations. The organ chamber itself is some 60 ft. long and 17 ft. deep and is maintained at a relative humidity of 70 deg.

The ceiling, which continues the sloping line of the main ceiling, averages 24 ft. high. It contains some 7,000 pipes, ranging from 9 in. to 32 ft. in height and from $\frac{3}{16}$ in. to 18 in. in diameter. The finish to the pipes is spotted metal (containing not less than 50 per cent. tin) and pure tin. For the purposes of convenient arrangement it has been necessary to design the organ on two levels. The instrument has five manual departments, the great organ, solo organ, positive, swell and independent pedal organ. It is controlled by four keyboards (61 notes), $2\frac{1}{2}$ octaves of concave and radiating pedals (32 notes) and 102 speaking stops and 18 couplers making 120 drawstops. Messrs. Harrisons, of Durham, are the organ builders and their tender was accepted in June, 1949. It was known that the building of the organ would take some three years and that the auditorium would therefore be used for some considerable time before the installation of the instrument itself. The auditorium had consequently to be designed in two stages. This was achieved by the use of a sliding folding screen which concealed the organ during its construction. The folding screen made it possible for the organ front to be opened up for the voicing which has taken place during many nights in the past year. It has also made it possible to obtain some measure of acoustic conditions with the screen, both opened and closed, and whilst it was felt at one time that the organ might affect the acoustics of the hall, this possibility now seems to be unlikely. The folding screen can therefore be left open during orchestral performances so that the full depth of the auditorium can be appreciated and so that the organ itself, with its special lighting, forms a focal point behind the orchestra. (See frontispiece on page 328.)



CONVERSIONS

by Felix Walter

Last week the JOURNAL'S *Guest Editor for* 1954, *Felix Walter, began his series of articles on conversions with a description of four attempts recently made to suggest a better use of the country's stock. This week he gives examples of conversion and reconditioning schemes carried out by the local authorities in Birmingham and Liverpool.*

5 BIRMINGHAM: RECONDITIONING OF SUB-STANDARD HOUSES

Architect : R. J. Allerton

MUCH HAS BEEN SAID LATELY IN FAVOUR OF IMPROVING amenities in areas scheduled, or likely to be scheduled, for clearance and reconstruction. So great is the task that it must be many years before this type of property can be swept away. Some years before the new Bill appeared in the House of Commons, Birmingham had already come to grips with the problem. A few figures will give the scale of this city's programme.

In 1946, of 283,611 separately occupied dwellings within the city boundary, 50,000 were found to be unfit. 29,182 of these were back-to-back houses, 6,500 had no internal water supply and 35,000 had no separate wc. The greater number of these unfit houses were inside the 1838 city boundary—and within the present-day city boundary there remains only sufficient land for a further 16,000 houses, equivalent to something like four years' output at the present rate.

To deal with the ever-growing decay of property, the city took advantage of provisions in the Town and Country Planning Act, 1944, since repealed, which gave broad powers for dealing promptly with congested areas of obsolete houses. These powers included the " expedited completion " procedure which simplified negotiations for the developer. Five areas were included in a Compulsory Purchase Order confirmed in 1947 which covered about 981 acres, embracing 29,526 dwellings, of which 18,000 were " back-to-back " and something like 5,000 shops, factories and other premises. Nearly 20,000 of these houses had no separate sanitary conveniences, and nearly 4,000 had no internal water supply.

Clearance and redevelopment could not, of course, be completed for many years and the city therefore decided to recondition the best of the sub-standard houses. The extent of this service naturally depended upon the expected life of each building and its relation to the redevelopment plans in the area concerned. The average cost of such work to some 6,500 houses, up to March 31, 1953, was £195 per house.

Repairs were broadly classed in three categories: (*a*) immediate urgent repairs—what might be called first-aid; (*b*) intermediate repairs for preventing deterioration between acquisition and final renovation; and (*c*) complete renovation to comply with the medical officer of health's standards. The work involved in (*a*) and (*c*) is carried out only when houses have an expected life of more than five years before being demolished.

Most houses acquired by the corporation are subject to the Rent Restriction Acts; consequently only a very small proportion of the work carried out came within the range of improvements which would attract an increase in the standard rent of 8% of the capital cost. Experience has shown that the average cost per house to the end of September, 1953 (spread over 25,000 dwellings receiving first-aid and intermediate repairs) was between £40 and £50. In the same period, 7,500 houses were completely renovated (category (*c*)) at an average cost of about £180 per house. But costs are rising, and from an analysis over twelve months the indication is that the average is now about £194.

To illustrate a typical example of what is being done, let us examine Birmingham's 3-14, Alma Terrace, off Benacre Street. At the time of acquisition, this block consisted of thirteen houses, each of which contained two bedrooms, living room and small pantry. War damage had made void four of the houses and one of these was demolished, being beyond economic repair. Under circumstances other than those of today, the whole block would have been handed over to the demolition squad—but even after consideration had been given to war damage and to advanced disrepair from neglect, the difficulty of rehousing the nine families made the corporation decide to make good structural defects and general internal disrepair. And the result? The stock of houses was increased by three instead of being decreased by nine.

This small group of buildings when renovated had an estimated minimum life of twelve years, and possibly a good deal more. To comply with reasonable standards much had to be done, but the average cost per house was between £180 and £195. The scope of the work was considerable, as the following notes will show: (*a*) pantry windows increased in

3-14, *Alma Terrace, Birmingham: just one block of Birmingham's thousands of back-to-back houses which are being "soled and heeled" by the Corporation's Housing Management Department. In addition to general repairs, the scheduled life of this block justified the supply of main water to each house—but wash-houses and WCs in the yards at the rear remain communal or at least shared in most cases. Until one has seen Birmingham's legacy of back-to-backs, one is inclined to deprecate the prolongation of life for this type of property—but the Corporation's approach is essentially realistic, for the occupants of these thousands of dwellings are unlikely to be removed for some years to come, and with improved conditions many will be reluctant to leave these houses to which they have become accustomed.*

size; (*b*) chimney stacks taken down and rebuilt; (*c*) old and defective slates and roof timbers stripped, re-covered in asbestos slates; (*d*) gutters and rainwater pipes renewed in zinc; (*e*) defective brickwork made good and shores removed; (*f*) brickwork repointed; (*g*) internal water supply provided to each house; (*h*) defective gas lighting replaced by electricity; (*i*) internal plastering (large areas) and joinery made good; (*j*) old-fashioned ranges replaced by slabbed tile surrounds; (*k*) external joinery repaired or renewed and repainted; (*l*) courtyard paving and fencing provided—originally open to street carrying heavy traffic; (*m*) WCs and wash-houses rebuilt and new sanitary fittings provided.

A somewhat different treatment was needed for 78-88, King Edwards Road (Ladywood Redevelopment Area). Here, this block of six 6-roomed houses was in fairly good structural condition. But roofs, chimney stacks and rainwater fittings were in a particularly bad state. The external rendering, as the illustration shows, was badly "crazed" and loose. The usual attention was given to the interior.

The old string courses, pilasters and pediments, always a source of trouble from damp penetration in old buildings, were hacked away and the entire elevation rendered with a cream rough-cast finish. Undoubtedly this overcame a lot of weaknesses, but the result, although entirely satisfactory from the practical aspect, lacks character.

In the case of 126-132, Hockley Street (Summer Lane Redevelopment Area) the structure and roof, despite proximity to bombed areas, were sound, apart from odd patches of roof

which were re-slated. The main item, externally, was caused by many perished and porous bricks producing damp interiors —the whole front and gable return (4½ in. thick) were rendered. When the property was acquired one dwelling was void and uninhabitable. Extensive interior repairs were carried out and the housing register was reduced by one applicant. Considerable plaster and joinery repairs were needed in the remaining dwellings with the customary redecorations within and without. Much as one regrets the loss of brick facings, there was no economical alternative to this particular case.

Top left: the dreary elevations of 78-88, King Edwards Road in the Ladywood Redevelopment Area—more back-to-backs with dwellings huddled around small internal courts. Each courtyard normally contains wash-houses and WCs for six dwellings. Left: houses in King Edwards Road after treatment. With the loss of every architectural feature during the "facial" the final result is practical but characterless—the simplest weathering or canopy over doors and yard entrances might have prevented the loss of scale at no great expense but with some relief to the eye. Below left: so much can be gained by retaining brick facings—the best surface finish in an industrial area. This example in Hockley Street (Summer Lane Redevelopment Area) was decayed beyond economical repair by pointing. Bottom left: Hockley Street, preserved by new external rendering. Gable and party walls in many houses are only 4½ in. thick and frequently these cross-walls are in no way bonded to the main structural walls.

---

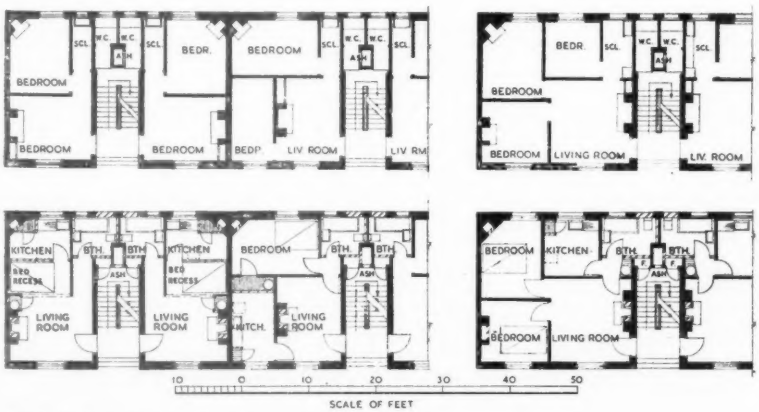
6 LIVERPOOL: IMPROVEMENTS TO SUB-STANDARD HOUSES.

Architect: Dr. Ronald Bradbury

THE SCARCITY OF CLEARED BUILDING SITES FOR redevelopment in Liverpool provided the city council with a problem, and unless more demolition is carried out in central areas a deadlock may be reached. But however bad this old property, it cannot be pulled down until new accommodation is provided. Consequently, when houses fall vacant and new ones are built, 90 per cent. are earmarked for those inhabitants from areas scheduled for immediate clearance.

To some extent the improvement and conversion of older buildings must assist in reducing this shortage. The city council decided to devote some of the resources of the housing drive to the rehabilitation of properties which can be raised to an acceptable standard. But these obsolete buildings must be structurally sound and capable of conversion into a number of separate flats. Immediately the 1949 Housing Act was passed, steps were taken to deal with the two oldest properties and the work, described below, of renovation and adaptation is proceeding on both schemes. These "Artisans' and Labourers' Dwellings," are four- and five-storey blocks, and the difficulty of obtaining other accommodation for the tenants has meant that the reconstruction has been, and must be, delayed. Not until all tenants have been removed from the flats with access on to one particular staircase, can the work proceed on that section.

St. Martin's Cottages, the first block of flats built by Liverpool in 1869—now being converted into self-contained units. Like so much built during the second half of the 19th century, the structure is solidly built and in sound condition. In all, there are six blocks, the two outer pairs 4 storeys high and the two intermediate 3 storeys—but as there is only 25 ft. clear between the parallel blocks, the intermediate blocks are to be demolished when the conversion is complete. Above: two of the outer blocks along Silvester Street. Right: the alleyway with the intermediate blocks on the right, due for demolition.



Original plans above: plans as converted below

ST. MARTIN'S COTTAGES: Completed in 1869 under powers contained in Liverpool's special Act of 1864, this is one of the oldest local authority housing schemes in the country. It contains 88 flats in four blocks, each four storeys high; with a further 36 flats in two, intermediate, three-storey blocks lying between the former.

The individual flats are of one, two and three bedrooms with small living rooms and scullery. WCs, which are communal, are on half-landings. There are no larders or fuel stores and planning in general is very sub-standard. Cooking is carried out over open fires and the flats are gas lit. Ash-chutes are situated between WCs. (immediately outside their entrances) and consequently the chutes are without ventilation. The existing number and sizes of flats are as follows:

1 Bedroom	265 sq. ft.	72
2 „	345 sq. ft.	36
3 „	488 sq. ft.	16
	Total	124

With only 25 ft. clear between the outer and intermediate blocks the flats, particularly those on the lower floors, are inadequately lit and poorly ventilated. It was therefore decided to demolish the inter blocks—a loss of 36 flats—but they were to remain until all outer four blocks had been reconstructed. By careful planning, and at reasonable expense, these out-moded flats are being turned into useful housing units. The work involved is to be summarized in this way:

(*a*) In each flat, one bedroom becomes kitchen with sink, drainer, power and gas points for choice of cooking, and properly ventilated larder.

(*b*) Each flat has a bathroom (bath, basin and WC).

(*c*) Old ranges and fireplaces are replaced by modern tiled surrounds and hearths with back-boilers and draught-controlled fire bottoms.

(*d*) Water heating is provided by back-boilers, referred to above.

(*e*) Each flat is wired for electricity.

(*f*) Entrances to old WCs on half landings become separate fuel stores for each flat.

(*g*) Patent impervious floor finishes laid in the kitchens, bathrooms and outer spaces.

(*h*) Existing ash-chutes retained on grounds of economy.

(*i*) Complete redecoration.

Cost: The average overall cost of conversion per flat is £350 and whereas the original flats were difficult to let, the new dwellings are extremely popular amongst those who, for one reason or another, must continue to live in the central areas.

Comments: (i) Within the four blocks being converted, there is no change in the number of units—but a considerable improvement in amenities.

(ii) All flats have lost one bedroom.

(iii) The clearance of the intermediate blocks must raise the standards of those which remain and an opportunity has risen for the skilful development of the area between the main outer blocks. It is unfortunate that these intermediate blocks must remain until the whole scheme is complete, for it may be some time before the tenants of the renovated units will appreciate to the full, improved conditions—but one can understand the Council's desire to retain all available dwellings for as long as possible.

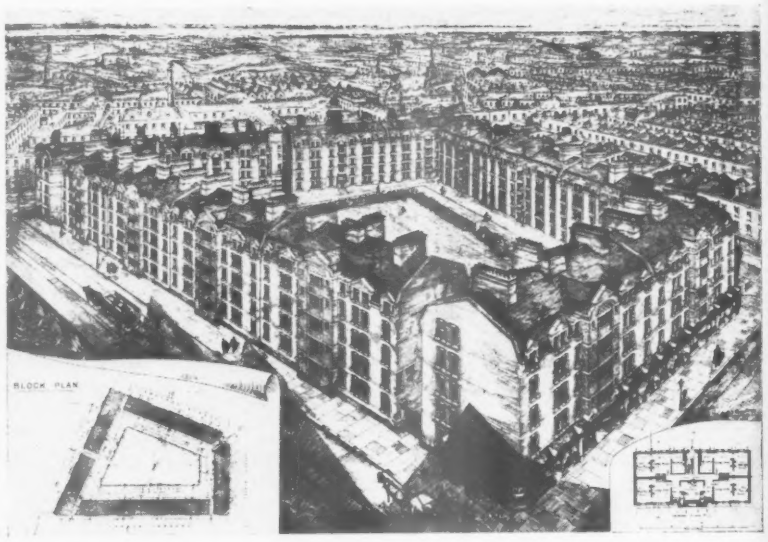
Another example of Liverpool's early attempts to rehouse the congested population—Victoria Square, opened in 1885, originally contained 270 dwelling units, but these were reduced, in 1941, through war damage, to 215. Internal replanning of these massive Victorian tenements will further reduce housing units but increase numbers of bedrooms from 306 to 335. Although the shops which were lost during bombing are to be rebuilt, there still remains a sufficiently large expanse of patched up concrete within the central court to permit a simple layout with the introduction of some judicious planting of trees which can survive, if not flourish, in this industrial area.

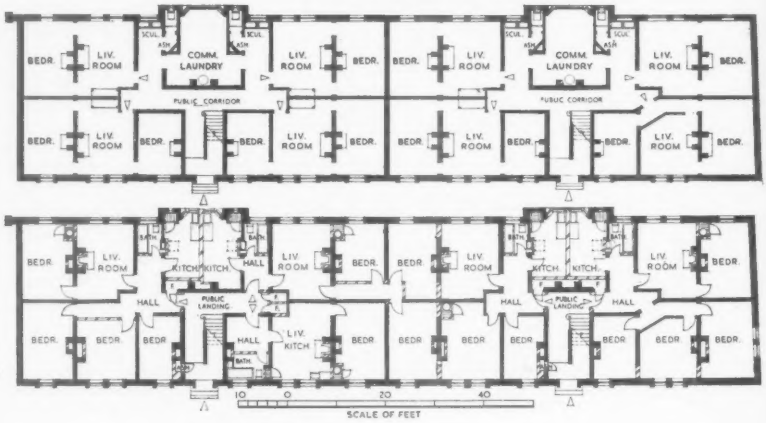
VICTORIA SQUARE: This ambitious scheme was originally completed in 1885 and in its time was considered a pioneer venture in municipal housing. It was extensively damaged by bombing in 1941, when the number of dwellings was reduced from 270 to 215. Adequate light and air were thus provided for the remaining buildings and there was no call for further demolition. The replanning has been entirely confined to work within the four walls.

In this case, communal sculleries and laundries were provided, as well as sanitary facilities, but the laundries were abandoned years ago through misuse by residents when WCs were occupied. There were no separate fuel stores, or larders, and cooking was carried out over open fires. Lighting throughout was by gas, and finishes of internal communal areas were dark and unsatisfactory—but roofs and structure were sound and well built with walls of 14-in. brickwork.

The scheme for conversion further reduced the numbers

Right: a perspective of Victoria Square designed by Clement Dunscombe, M.A., M.I.C.E. The most severe war damage was sustained by the block containing the shops in the bottom right-hand corner —it was, in fact, demolished. Half the block in the top left-hand was similarly destroyed. Below: the grandiose entrance to the Victoria Square dwellings whose occupants' habits forced the closure of their communal laundries. This detail illustrates the remarkable structural condition after 70 years— the corrugated sheeting inside the lobby is somewhat incongruous but it will no doubt disappear as rehabilitation overtakes it.





Original plans above: plans as converted below

of flats from 215 to 120 but, during the process, bedrooms were increased from 306 to 335. The two tables below will explain how this was achieved.

TABLE A: EXISTING ACCOMMODATION

Block No.	Bed/Sit. Room	1 Bedroom	2 Bedroom	4 Bedroom	Total
1	7	48	32	—	87
2	7	30	20	5	62
3	4	24	16	—	44
½	2	12	8	—	22
Total ..	20	114	76	5	215

TABLE B: REPLANNED ACCOMMODATION

Block	Four	Three	Bedrooms Two	One	Total
A	20	5	5	5	35
B	10	5	5	5	25
C	10	—	—	—	10
D	15	15	10	10	50
Total ..	55	25	20	20	120

The first block for conversion comprised 44 dwellings now to house 25 flats with increased living space. From the existing areas occupied by communal laundries, WCs, sculleries and access passages have been provided, a separate kitchen with ventilated larder, bathroom (bath, basin and WC), entrance hall and fuel store for each flat. Ash-chutes, originally internal, are now on external walls and vented into adjacent, disused, smoke flues.

As in the case of St. Martin's Cottages, fireplaces have been renewed and back-boilers provide the means for hot water heating. Flats are wired for electricity with power points for electric fires, immersion water heaters and radios—staircases are also lit by electricity. Old bedroom fireplaces have been removed and bricked up, as also have unnecessary communicating doors. Complete redecoration is included and particular care has been taken to avoid changing the character of the elevations. The average cost per flat is £544.

Comments: (i) By the introduction of new kitchens and bathrooms no habitable rooms have been sacrificed.

(ii) Although the actual number of flats has been reduced, there is increased bedroom accommodation.

(iii) Greatly reduced communal areas will limit abuse by tenants and lower outgoings on maintenance.

(iv) The internal court between the blocks is of sufficient size to justify thoughtful replanning with planting and play spaces for children—an essential amenity which the Council should be encouraged to provide sooner rather than later.

ellings
om the
WCs,
parate
n and
chutes,
vented

e been
water
nts for
ircases
e been
amuni-
and
aracter

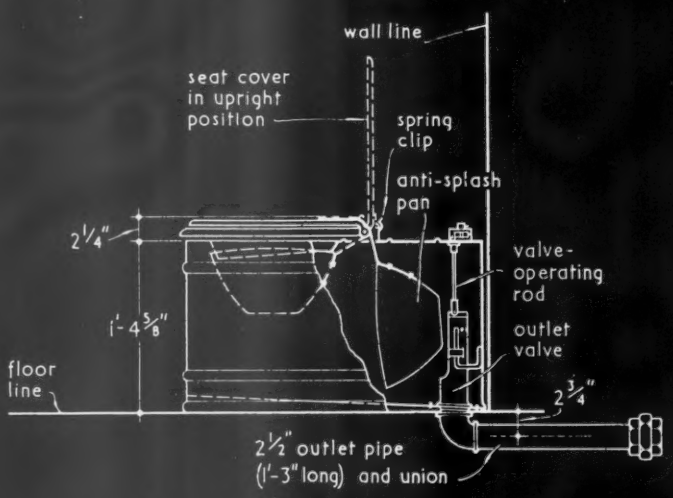
ns and

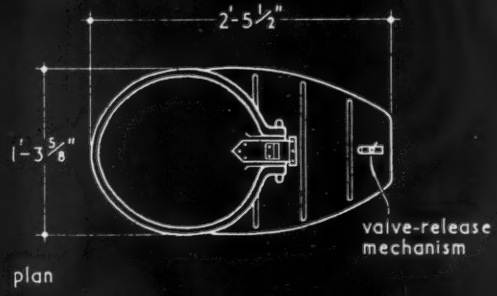
duced,

use by

fficient
d play
Council
er.

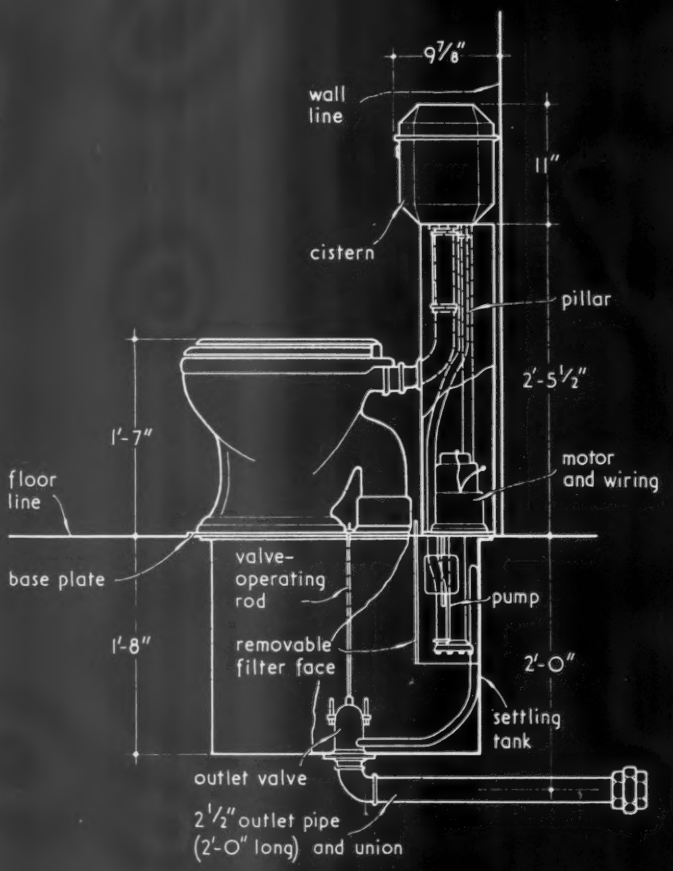
The Architects' Journal Library of Information Sheets 459. Editor: Cotterell Butler, A.R.I.B.A.

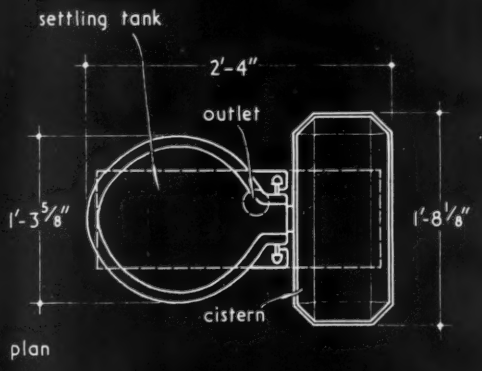




side elevation showing section through settling tank

FAMILY MODEL.





side elevation showing section through settling tank and pillar casing

DE LUXE MODEL.

·DESTROL· CHEMICAL CLOSETS. Supplier: Destrol Sales Ltd.

33.Q5 'DESTROL' CHEMICAL CLOSETS

This Sheet describes the Destrol system of chemical closets. This system uses a harmless antiseptic and deodoriser, and is designed for use where there is no main drainage and where, for reasons of economy or because of an insufficient water supply, a private drainage system is not to be installed.

General

The working of the system depends on the use of an antiseptic chemical which prevents the formation of bad odours, so that a special ventilator is unnecessary, and allows of the disposal of the resultant liquid in an ordinary soakaway. Since the liquid is conveyed to the latter through a short length of pipe there is no need for emptying by hand. The effectiveness of the chemical, which is sold under the trade name of Destrine, has been established by tests, details of which may be obtained from the supplier.

Models

Two types of fitting are manufactured, the Family model and the De Luxe model.

Family Model: In the Family model the pedestal seat and the settling tank are designed as a single unit. An anti-splash pan with a 3-in. diameter hole in the centre is linked with the seat cover in such a way that, when the cover is opened, it moves into a position where it prevents splash from the standing liquid below; the chemical is not, however, harmful to the skin. When the cover is closed the pan moves downwards and agitates the liquid, and thus hastens disintegration.

An outlet valve which can be released from above enables the contents to be emptied periodically into the soakaway. The bowl itself is spun from specially tempered pure aluminium and is proofed against corrosion. The seat and lid are of black plastic and comply with B.S. 1254 : 1945 *W.C. seats (plastics)*.

De Luxe Model: The De Luxe model is hardly distinguishable in appearance from the usual water flush closet. A pedestal of the usual pattern discharges through an S-trap into a settling tank situated immediately below it. The fitting is flushed in the same manner as a water closet from a cistern similar in all outward respects to a water waste preventer. The principle differs in that the water operates in a closed circuit and after it has been flushed through the pan into the settling tank it is pumped back into the cistern by a small electric motor and, owing to the quick action of the antiseptic, is ready for re-use. As in the Family model, the system is supplied with an outlet valve for periodical emptying.

The bowl is of porcelain, the pillar casing and cistern of enamelled steel and the seat and cover of black plastic: the pipes are mainly of rubber. The electric motor, which operates a submerged Stuart Turner pump, can be wired to suit either mains or battery with a voltage range of 6 to 230, but it is important that the voltage should be specified when ordering.

Fixing

Soakaway: The soakaway can be sited as close to the house as structural considerations will allow, the average distance being 10 ft. The recommended size for the soakaway is 2 ft. square by 4 ft. deep, but this will vary with local conditions, and care should be taken to ensure that there is 3 ft. clear below the outlet pipe.

The pit will normally require some form of lining to prevent caving-in and erosion. It is essential that the lining be porous: honeycomb brickwork is recommended, but an oil drum with the ends removed and with the sides pierced with large holes has been found to be satisfactory. The bottom of the pit should be filled with 6 to 12 in. of brick rubble and ashes and the top should be closed with a loose cover.

A number of Destrol models may be discharged into the same soakaway, provided this is proportionately increased in size. Sink and bath wastes, however, must always be separately accommodated.

Family Model: A hole should be cut in the floor and wall to accommodate the elbow and piping: the centre line of the hole should be 2¾ in. from floor level. The elbow is then fitted to the valve outlet and the unit placed in position. The outlet pipe and union are screwed on and other piping fitted as necessary to the soakaway.

De Luxe Model: A hole in the wall for the outlet pipe should be cut, its centre 2 ft. from floor level. A hole to take the settling tank should be provided, 2 ft. 3⅛ in. by 11⅛ in. by 1 ft. 8 in. deep, and 1 in. from the wall. When the tank is in position the flanges must be level with the floor and supported by it on the underside to take the weight of the unit. The cistern should be placed in position and secured with the pillars. The pillars are fitted with right and left-hand threads so that they screw into the base plate and cistern bracket simultaneously: they may be tightened by inserting a tommy bar into the holes provided. The rubber inlet and outlet hoses are fitted to cistern connections and worm clips tightened up. The pillar casing is secured to the cistern by four screws and the outlet pipe and union screwed on. Other piping is then fitted as necessary to the soakaway.

The electric wiring is connected to the mains or battery supply.

Notes on Use

The system requires to be emptied and re-filled at regular intervals. The length of the interval with the De Luxe model is fourteen days, but with the Family model it varies with the number of people using the closet and is measured by the time taken to use up a 4-lb. tin of the Destrine chemical in accordance with the instructions given on the container.

Further Information

The supplier maintains a technical department which is prepared to advise on any problems arising from the use of the system.

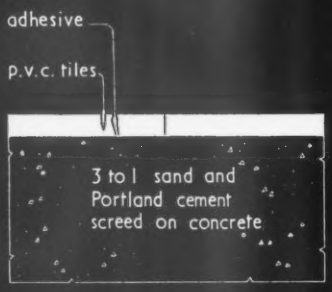
Compiled from information supplied by :

Destrol Sales Limited.
Address : 402, Salisbury House, London Wall, London, E.C.2.
Telephone : Monarch 8422.
Telegrams : Provenprop, Ave, London.

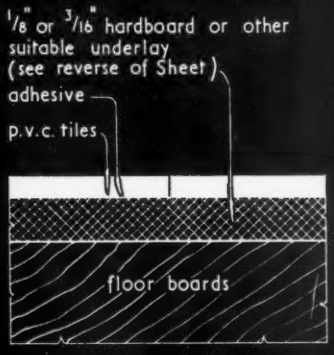
 The Architects' Journal Library of Information Sheets. Editor: Cotterell Butler, A.R.I.B.A.

FLOOR TILES | POLYVINYL CHLORIDE

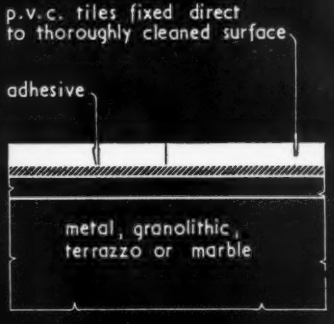
The Architects' Journal Library of Information Sheets 460. Editor: Cotterell Butler, A.R.I.B.A.



TO CONCRETE.

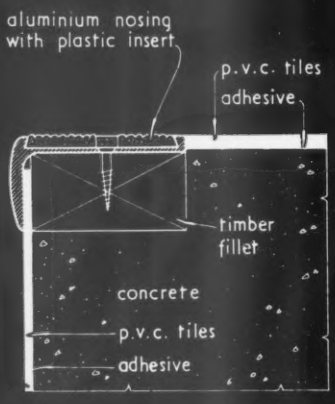


TO TIMBER.

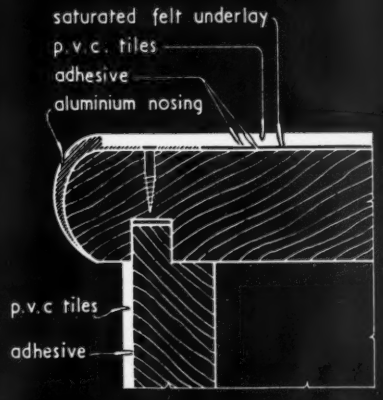


TO NON-ABSORBENT FLOOR.

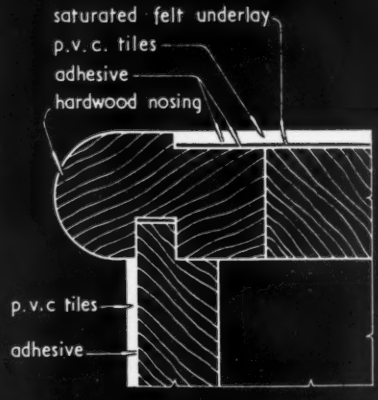
FIXINGS TO SUB-FLOORS. (full size)



ALUMINIUM AND PLASTIC NOSING.

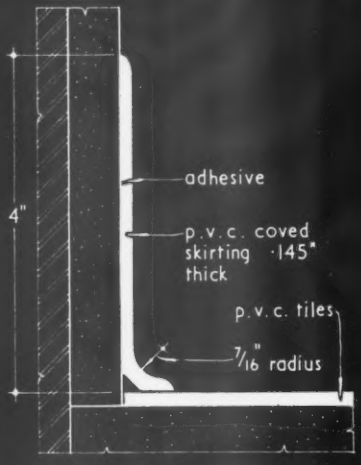


ALUMINIUM NOSING.

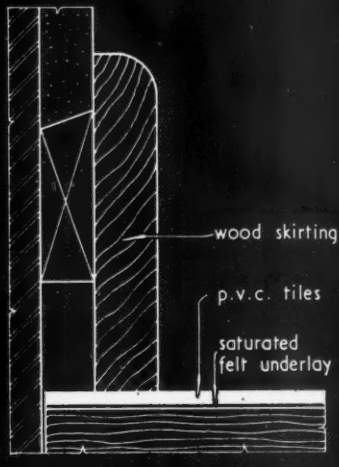


HARDWOOD NOSING.

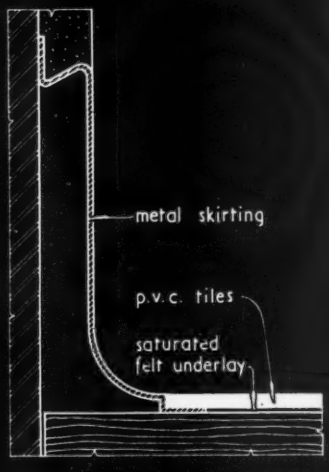
STAIR TREATMENTS. (half full size)



P.V.C. COVE.



WOOD.



METAL.

SKIRTINGS. (half full size)

NEWHOUSE P.V.C. FLOOR TILES

Manufacturer: Michael Nairn and Co. Limited.

18.H1 'NEWHOUSE' P.V.C. FLOOR TILES

This Sheet deals with Newhouse p.v.c. floor tiles, coved skirting and edging strips and illustrates their application to concrete, wood and non-absorbent sub-floors.

General

Newhouse tiles consist of polyvinyl chloride, mineral fillers and light-fast pigments. They are proof against fats and oils, and will resist attack by mild acids, alkalis and solvents. (Concentrated acids, ketones and chlorinated solvents, if left in contact with them for any length of time, will soften the tiles). They are not affected by moisture or normal heat. They are suitable for use in hot climates and where underfloor heating is used, provided the floor temperature does not exceed 120 deg. F. They will not support combustion.

Sizes

The standard tile size is 9 in. by 9 in. Insert strips 3 ft. long by 1 in. and 2 in. wide are available. Edging strips, 6 ft. long by $1\frac{1}{8}$ in. wide may also be obtained. The tiles are made in two thicknesses: $\frac{1}{8}$ in., which is recommended for commercial buildings, canteens, hospitals and places where traffic is heavy, and $\frac{1}{16}$ in., which is recommended for domestic use and places where traffic is light.

Colours

Newhouse tiles are supplied in a range of clear bright colours, plain or with a patterned effect.

Applications

The sub-floor must be structurally rigid, smooth and free from all foreign matter such as grease, oil, acid, alkali, paint, varnish and old floor coverings. The tiles are fixed to the sub-floor with special bituminous adhesives and best results will be obtained by employing a firm of specialist flooring contractors.

Concrete sub-floors: New concrete sub-floors should be screeded with a 3 : 1 sand/Portland cement screed, steel-trowelled to a smooth level finish. The screed must be allowed to dry out thoroughly. A damp-proof course in a direct-to-earth concrete floor is only necessary where there is likely to be excessive dampness or hydrostatic pressure. The floor is first primed with solvent primer and the tiles are fixed with adhesive M.N.241, supplied by the manufacturer. For the purpose of setting levels, no allowance need be made for the thickness of primer and adhesive.
The tiles are fixed to old concrete floors in the same way. If such floors are uneven, they should be treated with a levelling compound. Expansion joints, cracks and holes should be filled with a quick-setting filler such as Latex-Ciment-Fondu or other approved leveller.
The tiles are suitable for laying on concrete floors with embedded heating panels, provided the surface temperature is not more than 120 deg. F. If a temperature of over 80 deg. F. is expected, special heat-resisting adhesives should be used.

Wood sub-floors: Wood sub-floors must be rigid and clean and all loose boards must be securely nailed down. An underlay must be provided, which may be one of the following:

(i) latex-cement, bitumen-cement or other similar leveller.

(ii) $\frac{1}{8}$-in. or $\frac{3}{16}$-in. hardboard nailed, with flat-headed nails, at not more than 6 in. centres and round all edges.

(iii) Where the sub-floor is smooth, a bitumen-saturated felt paper fixed to the wood with adhesive M.N. 390.

The tiles are fixed to the underlay with adhesive M.N.1071.

Non-absorbent sub-floors (e.g., granolithic, terrazzo, marble and metal): Such sub-floors must be thoroughly clean before the tiles are laid, or the adhesive will not bond properly to them. Metal sub-floors must be de-greased. Any cracks or holes must be filled with a quick-setting filler and the sub-floor must be smooth and level. The tiles are fixed direct with adhesive M.N.241.

Magnesite sub-floors: Magnesite sub-floors are often structurally weak. A specialist flooring contractor's advice should be taken before laying tiles.

Thermal Conductivity

The thermal conductivity of $\frac{1}{8}$-in. Newhouse p.v.c. tiles is 22 B.Th.U./sq.ft./hr./deg.F. difference in temperature between the faces.

Maintenance

Newhouse tile floors should not be scrubbed or washed for ten days after installation in order to allow the adhesive bond to mature. Thereafter, regular daily cleaning with warm water and soap or soapless detergent will be adequate for normal conditions. Where the traffic is such that the tiles become very dirty, they should be scrubbed with a mild abrasive and washed with warm water.
Grease or oily stains may be removed with petrol or paraffin, followed by warm water and soap. The solvents should be used sparingly as they may penetrate between the tiles and soften the adhesive.
The tiles may be polished, if desired. Nairn's Thistle Floor Dressing and Nairn's Wax Polish are recommended.

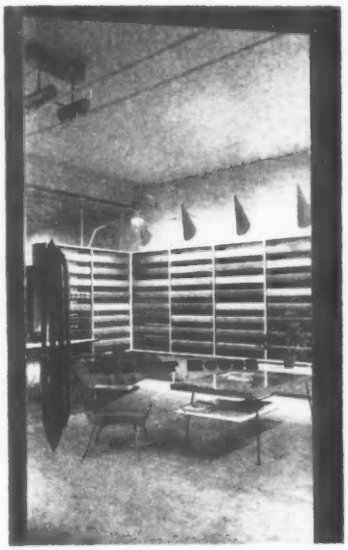
Further Information

Further information on tiles and adhesives may be obtained from the manufacturers.

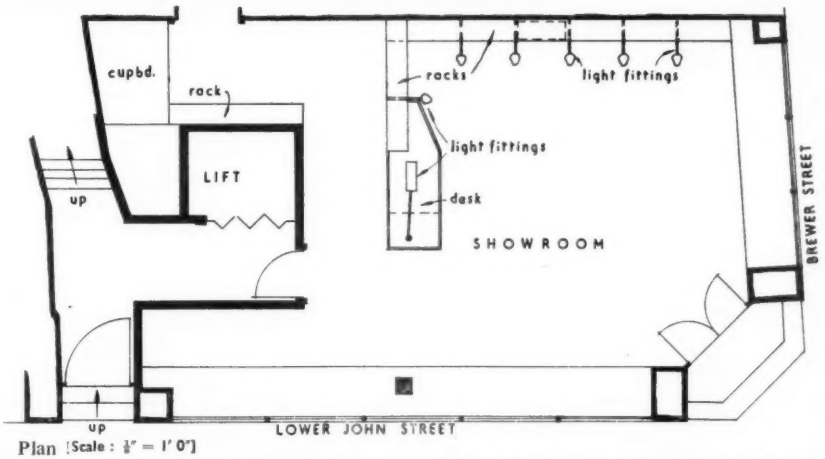
Compiled from information supplied by:
Michael Nairn & Co., Ltd.
Head Office: Kirkcaldy, Scotland.
Telephone: Kirkcaldy 2011.
London Office: 131, Aldersgate Street, London, E.C.1.
Telephone: Monarch 3211.

The Architects' Journal Library of Information Sheets.
Editor: Cotterell Butler, A.R.I.B.A.

CLOTH SHOWROOM IN LOWER JOHN STREET, LONDON, W.1

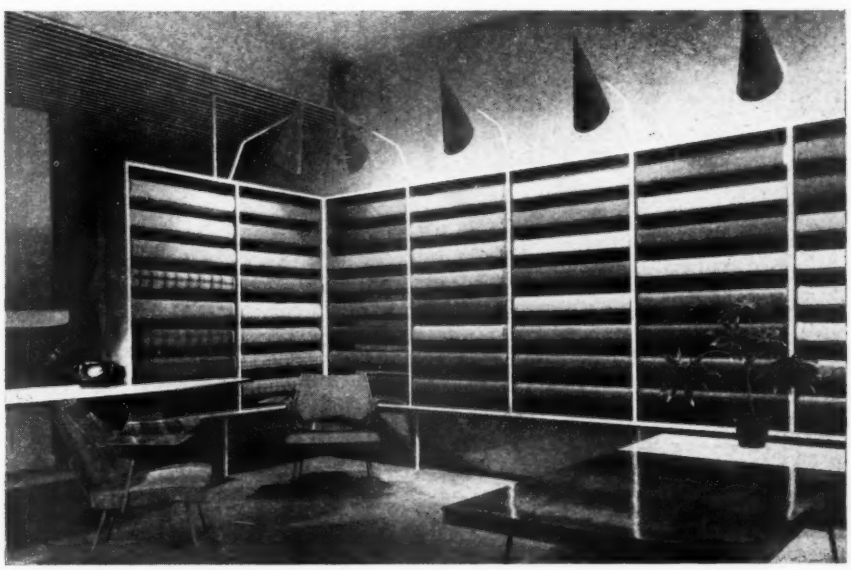


This remodelled showroom for Darley Mills Co., Ltd., for the display of wholesale and export fabrics, was designed by Thomas Wolsey. There is a lime coloured background to the black and white stove-enamelled lettering seen in the photograph above right. The entrance door, seen above, has a mahogany handle in the shape of a shuttle. Below right are seen the racks for displaying cloth, these are of walnut and are lit by specially designed lamps with lemon coloured shades; the light shades seen in the photograph of the service entrance corridor below, left, are painted vermilion and green-black. This narrow corridor, which



Plan [Scale : $\frac{1}{8}$" = 1' 0"]

is used for heavy goods traffic, has walls of green-black, light blue and lemon, and a ceiling which is white and light blue at the higher level. The floor is covered with thermoplastic tiles. General contractors J. W. Clifford, Ltd. Sub-contractors appeared last week.



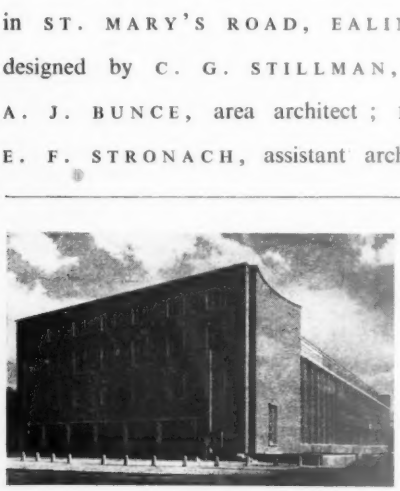
TECHNICAL COLLEGE

in ST. MARY'S ROAD, EALING, LONDON, W.5

designed by C. G. STILLMAN, county architect, Middlesex

A. J. BUNCE, area architect; B. S. ROBERTS and

E. F. STRONACH, assistant architects



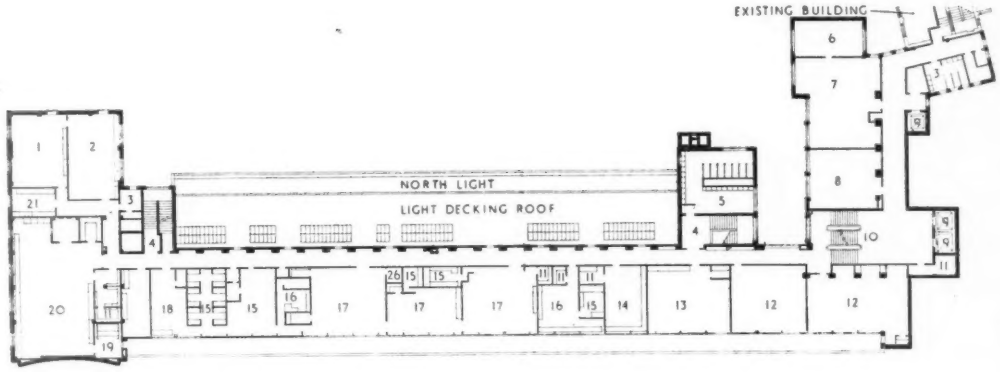
General view from the south-west.

The site of the extensions to the Ealing Technical College and School of Art is bounded by St. Mary's Road on the west and by Warwick Road on the south. To the north are the gardens of a vicarage and the original college buildings are to the north-east. Although Warwick Road is residential, it carries a considerable volume of traffic and both roads are scheduled for widening. The eastern end of the site has been left vacant for future development.

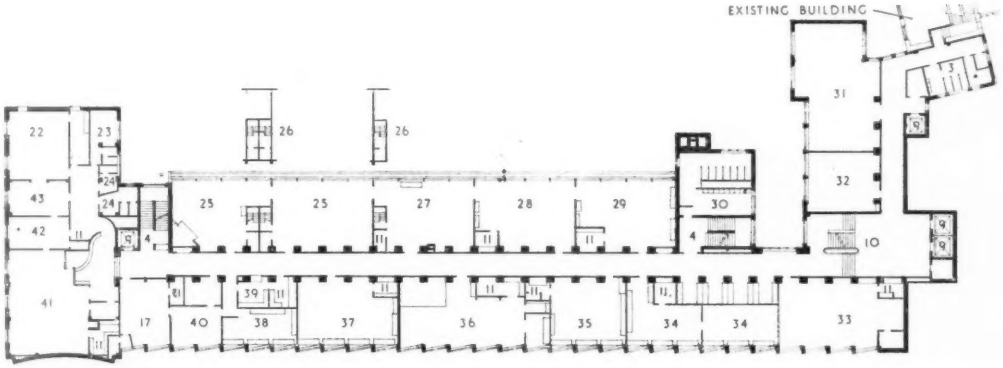
South facade of the main wing of the new extension.

KEY

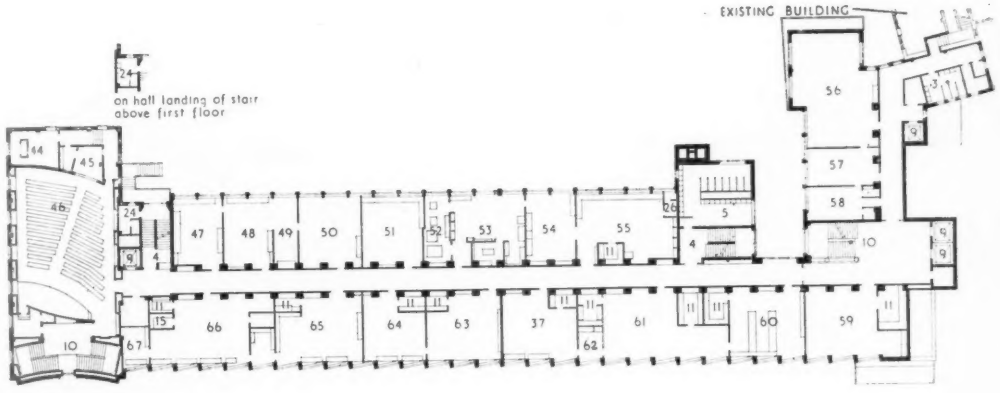
1. Art staff common room
2. Art staff studio
3. Staff lavatory
4. Escape stair
5. Male students' lavatory
6. Marking room
7. Staff common room
8. Classroom
9. Lift
10. Staircase
11. Store
12. Typewriting
13. General drawing
14. Silversmithing
15. Dark room
16. Photo processing
17. Studio
18. Photo finishing
19. Spray booth
20. Decorating and sign-writing
21. Frame room
22. Board room
23. Rest room
24. Lavatory
25. Life studio
26. Models' dressing room
27. Mural painting studio
28. Drawing studio
29. Still life studio
30. Female students' lavatory
31. Students' common room
32. Staff dining room
33. General craft
34. Bookbinding
35. Leatherwork
36. Model and cabinet making
37. Design
38. Art work
39. Sales
40. Art head
41. Clerks
42. Secretary
43. Principal
44. Fans
45. Projection
46. Lecture theatre
47. Etching
48. Engraving
49. Printing
50. Lithography
51. Stone carving
52. Kilns
53. Pottery
54. Casting
55. Modelling
56. Office organization
57. Commerce research
58. Commerce head
59. Upholstery
60. Millinery
61. Dressmaking
62. Fitting room
63. Hand embroidery and needlework
64. Machine embroidery
65. Woven textiles
66. Printed textiles
67. Research
68. Exhibition hall
69. Porter
70. Physics laboratory
71. Preparation
72. Demonstration
73. Chemistry
74. Biology
75. Transport demonstration
76. Classroom
77. Goods entry
78. Entrance hall
79. Book keeping
80. Geography
81. Library



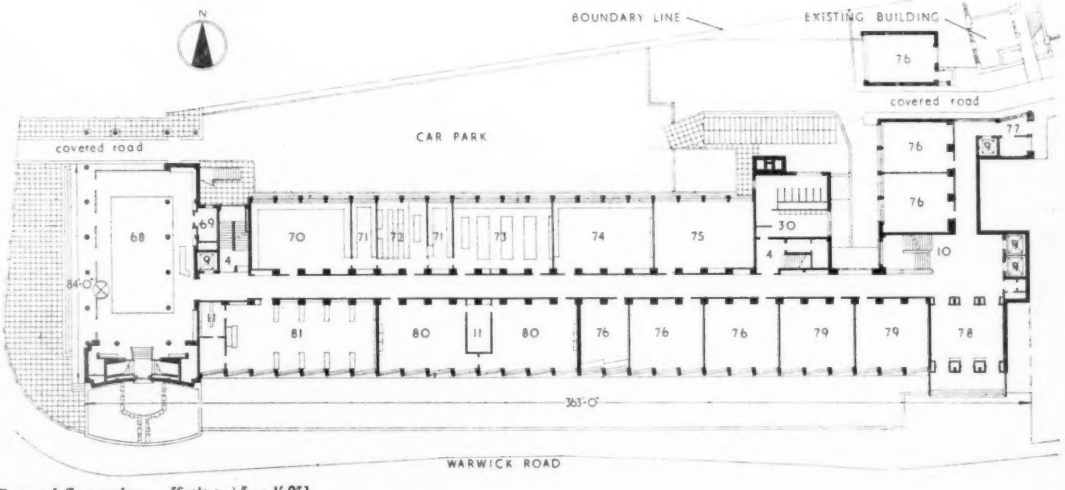
Third floor plan



Second floor plan



First floor plan



Ground floor plan [Scale : $\frac{1}{16}$" = 1' 0"]

Above, detail of the south wall of the main block. The wall finish is dark red rendering divided by 1-in. strips of travertine. Right, staircase leading from the ground floor exhibition hall in the west wing to the first floor lecture theatre.

TECHNICAL COLLEGE

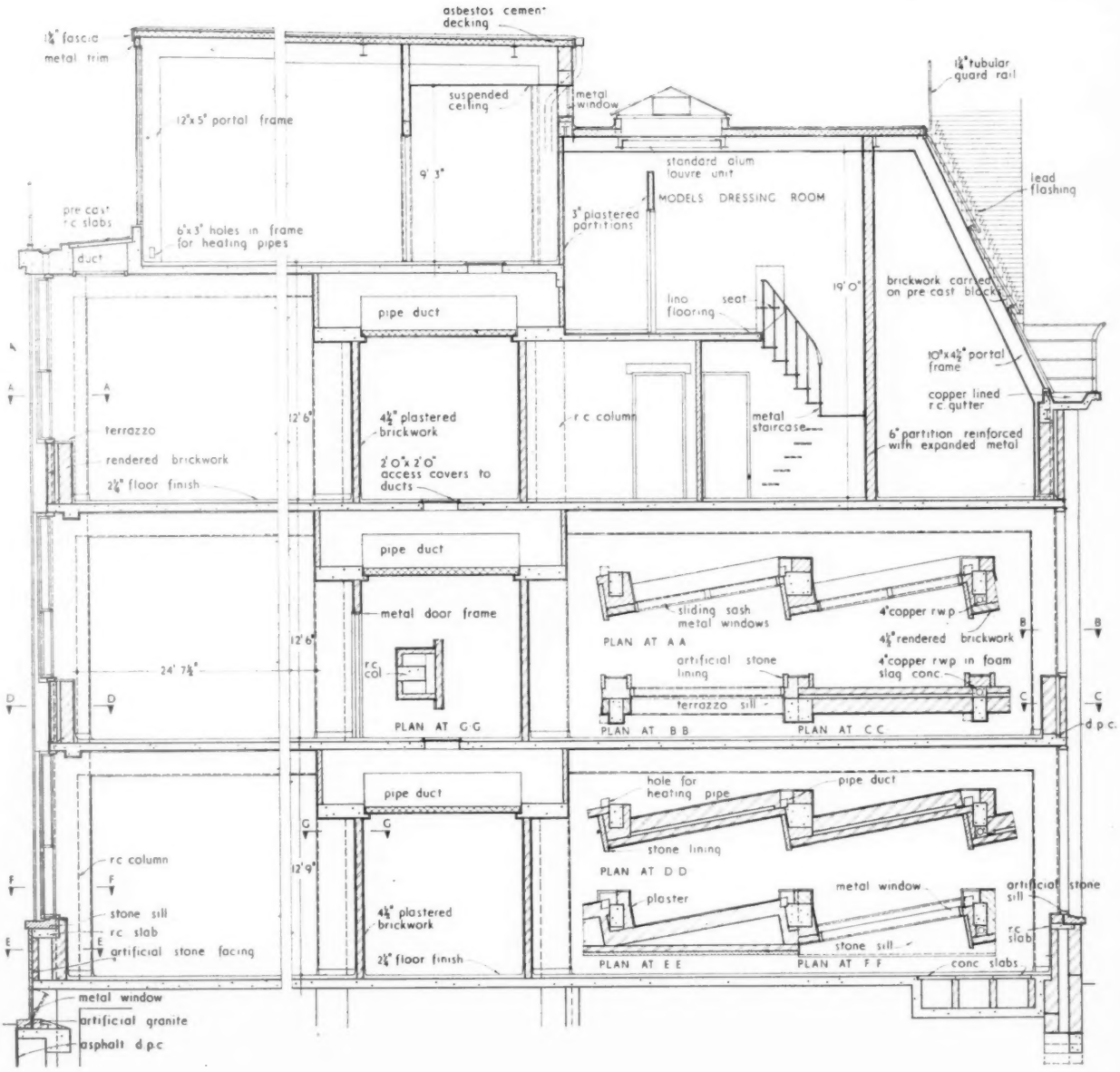
in ST. MARY'S ROAD, LONDON, W.5

designed by C. G. STILLMAN, county architect, Middlesex

PLAN.—The foundations of an earlier scheme laid down before the last war incorporated a basement subsequently used as an air raid shelter. After the war the schedule of accommodation was extended and modified but the buildings were made to conform to the existing foundations. To meet the additional requirements of the post-war scheme, an extra floor was added to the main block. The heating chamber and fuel store are situated under the car park, and the basement contains maintenance workshops, stores, switch and battery rooms and cycle stores.

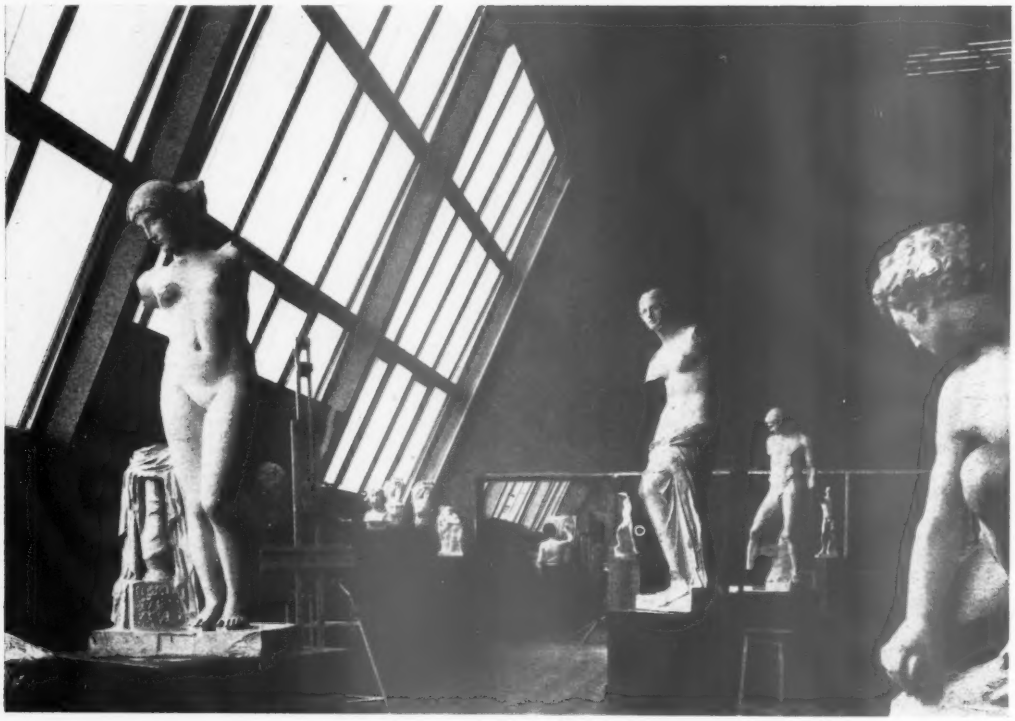
CONSTRUCTION.—The extension has a reinforced concrete frame with the exception of the top floor of the main block, which has a RSJ portal frame and a flat roof of asbestos cement decking. Walls are of cavity brick construction with a 4½-in. outer skin and a 9-in. inner skin. Main partitions are of 4½-in. brick.

FINISHES.—The St. Mary's Road elevation is faced with 2⅝-in. handmade, sand-faced, multi-coloured Buckinghamshire bricks. Copings are of Clipsham stone, window surrounds of travertine columns cased in precast terrazzo and steps are of artificial granite. Most of the south facade is finished with dark red rendering and 1-in. wide vertical travertine strips. (The serrated plan of this wall is designed to break up the very long facade.) The plinth is of artificial granite. Internally, walls are finished with plaster or fair-faced



Typical cross-section through main wing on south-north axis
[Scale : ⅛" = 1' 0"]

Right, the main entrance to the west wing and ground floor exhibition hall, from St. Mary's Road.



Left, art room on the fourth floor of the main block. This floor has an exposed portal steel frame and north lighting. Below, enquiry desk on the first floor of the west wing. Bottom left, the lecture theatre in the west wing. Bottom right, part of the west facade and the main entrance from St. Mary's Road.

TECHNICAL COLLEGE

in ST. MARY'S ROAD, LONDON W.5

designed by C. G. STILLMAN, county architect, Middlesex

brick and floor finishes include wood blocks with wide granolithic margins in craft rooms, thermoplastic tiles in classrooms and cork tiles with granolithic margins in corridors.

SERVICES.—Heating is by low-pressure accelerated hot water from coke-burning mild-steel boilers. The lecture theatre and dark rooms are artificially ventilated. Generally, there is a duct over each corridor and vertical ducts form part of the casings to columns on either side of the corridor. There are four lifts, one being a goods-passenger lift available for the caretaker's flat.

The general contractors were Prestige & Co., Ltd. For sub-contractors see page 354.

TECHNICAL SECTION

Now that collaboration between architects and engineers is being widely discussed and increasingly practised both at basic and detailed design levels, it may be useful if we call attention to matters which have been found to create difficulties.

The final appearance of heating and electrical services can only be made acceptable (*a*) by burying them entirely, or (*b*) by knowing all about them and consciously placing them in the lines of the design. Combinations of (*a*) and (*b*) are also possible. But with the increasing need to economize in building fabric and the use of self-faced panel materials, full exposure of pipes and conduits with their attendant excrescences, valves, junctions, etc., makes it imperative for the architect to know the exact nature of services about to be imposed on the design. Eighth scale plans of pipe runs, with almost invisible dots in vital corners (which later turn out to be 6-in. risers with the odds on flanged joints occurring at eye level), must be amplified by sections, elevations and half-inch details. Electrical layouts which more closely resemble wireless circuits, familiar only to qualified " sparks " who are more concerned with principles than details, must be accompanied by drawings showing the exact run and diameter of conduits, position and sizes of junction boxes, position and overall sizes of fuse boards, master switch controls, and so on. It is up to the architect to explain to the engineer which developments in technique make the supply of this information vital to the visual quality of the finished job. Those engineers who already do it are to be gratefully thanked.

This week's feature

8 QUANTITY SURVEYING
cost control

The number preceding the week's special article or survey indicates the appropriate subject heading of the Information Centre to which the article or survey belongs. The complete list of these headings is printed from time-to-time. To each survey is appended a list of recently-published and relevant Information Centre items. Further and earlier information can be found by referring to the index published free each year.

In the series "Focus on You" by our guest editor Ian Bowen, an article appeared (on December 31) which was criticised by the RICS as containing ". . . serious misstatements of fact regarding the quantity surveying profession." Below, we print their reply, prepared by "Chartered Quantity Surveyor," together with Prof. Bowen's own comments. The question here involved, as our editorial on page 329 suggests, is whether or not the present system of measuring and valuing building work is out of date.

During the past few months considerable interest has been aroused in the architectural and surveying professions by the series of articles by the JOURNAL'S Guest Editor, Professor Ian Bowen, under the title of " Focus on You."

All seemed to be going well until there was launched, upon a critical public, the issue of December 31, 1953. In this there appeared what are considered to be a number of inaccurate statements which have created considerable resentment in quantity surveying circles. To come straight to the point, the writer is clearly of the opinion that Professor Bowen was incorrectly briefed from an unknown and unqualified source in regard to his references to quantity surveying. This article is an attempt to put the matter into true perspective.

Collaboration between the quantity surveying and architectural professions has always been harmonious and the status of the quantity surveyor has increased to a sound and well-established position today. The three parties to the building industry are well placed and, with the natural tendency to look to the architect as the leader of the partnership, there should only come good results.

But a word of warning must be sounded. We must have the true facts as the basis of our relationship. There is no room for loose or woolly thinking which can only give rise to misunderstandings. Attempts by the uninformed to force into practice false ideas

of the worth of the contribution of any one of the professions, or of sound tendering methods, might result in disintegration of what is properly regarded as the true economic and efficient basis of building operations with each party pulling his full weight. In fact, as the popular song has it—" Sit down, you're rocking the boat! "

So many inaccuracies have recently crept into print in various places about the work of the quantity surveyor. The reasons for the attacks are based on erroneous information and a lack of knowledge of current building procedure.

Although in the matter of preliminary planning of building contracts the quantity surveyor is in the architect's hands, he is nevertheless in a first-class position, given full information of what it is intended to build, to advise the architect and, through him, the building owner, on all the cost aspects of the work which it is proposed to carry out. There appears to have been for many years, in certain quarters, a considerable lack of knowledge of the services which independent quantity surveyors can render in connection with all types of building contract. Some of their main functions are as follows:—

Quantity Surveyors are available to advise the architects as to the effect on cost of the various materials and types of construction under consideration, and on any other matters arising from their experience of contractors' methods and the financial side of building contracts.

Quantity Surveyors estimate the approximate cost of the work from the architects' preliminary designs, so helping building owners to budget for their expenditure at an early stage and to avoid the difficulties arising from tenders higher than anticipated.

Quantity Surveyors prepare the particulars necessary for obtaining competitive estimates from building contractors, or advise on the terms of payment for any work which may have to be paid for on a non-competitive basis. The view held by quantity surveyors is that to obtain the most satisfactory economic results from the point of view of building owners, there must be a background of competitive tendering. It is perhaps worth noting that, although wage rates and the prices of an appreciable number of materials are relatively standardized, the effective use of labour in combination with machinery and the minimizing of waste of materials offer great scope for competitive endeavour.

For example, the man-hours required for building a small house have been found by the Girdwood Committee (Third Report) to vary widely between the range of 2,100 to 3,250 man-hours, which covers only two-thirds of the contracts, the remainder being outside that range. The labour expenditure on the worst contracts was almost three times that on the best.

Quantity Surveyors assess, as building operations proceed, the value of work done, and make recommendations to the architects as to payments on account to be made to the building contractors.

Quantity Surveyors report through the architects, when so required, the financial effect of variations on the contract ordered or proposed from time to time. But all quantity surveyors will agree that variations are the bugbear of their lives!

All of these services are intended to maintain the smooth running of, say, building operations, and to ensure that all payments made by the building owner are truly vouched for professionally and independently as being in accordance with the terms of the contract. From the point of view of the building owner, therefore, and of the architect, it is essential that the quantity surveyor should be employed early in the contract in order that his advice may be given to the architect at all stages.

Now let us return from this general statement of the duties of the quantity surveyor to Professor Bowen's article. Professor Bowen made mistakes in fact, in theory, and in conclusion. These must be corrected if the inter-relation of the professions is not, in the long run, to suffer.

First and foremost " cost control in building " is not unsound. The quantity surveyor neither controls cost within the building industry, nor " estimates a price for each of the items " in bills of quantities. The former function is performed, in its design aspect, by the architect (to whom the quantity surveyor is always available for consultation at the architect's request), and in its works organizational aspects by the building contractor; the estimation of prices is done, except in those few cases where the building contractor seeks outside assistance, by the estimators on the contractor's own staff.

The duty of the quantity surveyor is to supply facts, and the price based on those facts is a matter for the building contractor's judgment. If he were not employed, the six or eight—perhaps more—contractors invited to tender must each find the facts out for themselves. An economist should realize that in these circumstances builders would have to employ technical experts or estimators to do so, and that the cost of their labours would therefore fall on the industry in the form of overhead charges, which in turn must be passed on to the man who is paying for the building work. This would result in the unfortunate building owner paying for his share of the labour, not only in preparing the tender but also, of course, for all the unsuccessful tenders as well.

Professor Bowen implied in his article that the present system of measurement of building work was too elaborate and that the quantity surveyor introduces too many items to his bill of quantities. The system normally adopted is, of course, one agreed by a joint committee of surveyors and builders, which is set out in the Standard Method of Measurement of Building Works. This committee is constantly considering the Standard Method, which is periodically brought up to date. The quantity surveyor members of that committee collaborate with their building contractor colleagues to see how the requirements of builders' estimators can be put into practical form so that bills of quantities can be adequately framed.

If Professor Bowen were to visit the offices of the majority of building contractors, he would there see how carefully records are kept, and his statement " that final costs are rarely documented " is in fact quite inaccurate. Records of each rate inserted in a bill of quantities are mostly carefully maintained. Periodical checks are made on the costs of materials, both to gauge the output of labour generally and to adjust the rates used in pricing.

The wild statement was made by Professor Bowen to the effect that the quantity surveying profession was one which would not exist if the building industry were organized on sound industrial lines. It is unfortunate that Professor Bowen does not indicate the lines. Erecting buildings is not like manufacturing buttons, where costs, once ascertained, can be used again and again with slight variation. Every building is different. Even in local authority housing schemes, where groups of houses may appear to be composed of identical units, each has substantial differences. The levels and the nature of the ground involve differences in foundations; the design of a drainage system and the lay-out of paths and fences preclude identical repetition; aspect, too, introduces variations in plans which would otherwise be identical. Differences in other types of buildings are infinitely greater.

In his article, Professor Bowen wrote that " This sketchy account refers to practices which are now out of date." This is quite untrue. The practices are not by any means out of date. In fact, they are very much alive. They have spread, with modifications to suit local conditions, to the Commonwealth and Dominions. Further, a Government-sponsored deputation from Denmark, where there are at present no professional quantity surveyors, came recently to the United Kingdom because they were dissatisfied with their own tendering procedure. They came to study the methods in use in this country, and although their official report has not yet been received, they seem to have been most interested in our methods and hopeful of the possibility of adopting some similar practice in Denmark.

Towards the end of his article, Professor Bowen criticized the inability of the building industry to work to a fixed cost and blamed the variation clauses in building contracts. As he realizes, this defect is bound up with the lack of proper planning. He stated that the architect cannot " plan ahead to the last detail unless he is working in an economic environment conducive for that result to be obtained." Whatever that may mean, neither the quantity surveyor nor the builder has any control upon the advance planning. So often this arises because the building owner cannot be convinced of the necessity to have everything cut and dried before rushing ahead with the work. Both the quantity surveyor and the building contractor would welcome contract documents so complete before tendering that nothing more is necessary than the order " Carry on."

In conclusion, it does appear that Professor Bowen's general approach to the relationship of the architect and the quantity surveyor has been quite misleading. The intention of this article has been to ensure that the proper inter-relationship and method of working can be appreciated easily by the members of both professions. The recent observation that the architectural profession is changing rapidly applies equally to the quantity surveying profession. If the changes are to be for the better, it will undoubtedly be of immense benefit to both professions if these can be accomplished in an atmosphere of friendly interest, understanding and goodwill.

A REPLY BY PROFESSOR IAN BOWEN

The question at issue is not whether a quantity surveyor knows more details of the working of quantity surveying methods than someone else, nor whether quantity surveyors are individually efficient, or useful at their jobs; nor, again, is the matter in debate whether measurement is better than guesswork. The question is whether the skill of quantity surveyors, and of estimators, is being deployed to the greatest advantage by present methods.

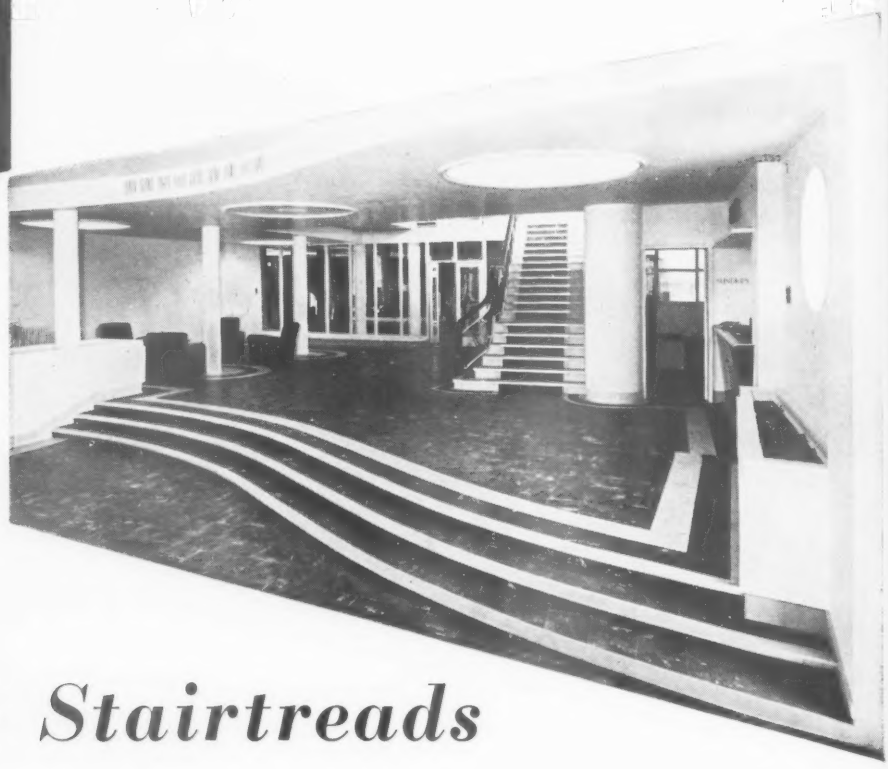
Critics of present methods, of whom I am but one, find several reasons gravely to doubt whether bills of quantities, in the context in which they are used, and with the relationships that at present prevail, are at all close to the best that are practicable. The anonymous chartered quantity surveyor apparently takes the view that any such doubts must be founded on ignorance.

This contention would perhaps have been more plausible if he had given us a clearer account of procedures in his profession, and if he had distinguished more sharply between assertion and description. But it is unnecessary to dispute about facts since, so far as the profession is concerned, he mentions a sufficient selection of them to support my own case.

The status of the quantity surveyor has increased, he tells us, " to a sound and well established position today." He does not

Ferodo Stairtreads at Bentalls' Kingston-on-Thames

In any setting



Lea Valley Growers Association, Waltham Cross.
Flooring Contractors: Semtex Ltd.
Architect: Howard Leicester F.R.I.B.A.

FERODO *Stairtreads*

are unobtrusively safe...

Ferodo Stairtreads obey the dictum that governs all ready-made fittings which must take their place in an overall design—they are completely functional yet merge into their surroundings.

Never do they intrude . . . Never do they jar the eye.

The only obvious thing about them is the high degree of safety they provide; a firm, reassuring foothold, edged with the quiet gleam of the aluminium nosing, gently indicating the edge of the step.

Ferodo Stairtreads wear so well too, standing up to years of continual use and needing only a quick wash or brush down to look as if they had been fitted the day before.

Send for samples and a copy of our Stairtread Catalogue No. 888.

TWO NEW COLOURS

In addition to red, green, grey, blue and white composition and brown fabric, Ferodo Stairtreads are now available in black and brown compositions.

FERODO *non-slip Stairtreads*

FERODO LIMITED · CHAPEL-EN-LE-FRITH · *A Member of the Turner & Newall Organisation*

must
into

firm,
ently

eding

ds

isation

state over what period; but if he means over the last 30 years he should also have mentioned what has happened to building costs, to delays in the settlement of contracts, and other such cognate changes.

In very recent years building costs have in some ways been brought under better control (e.g., in the well-known case of some parts of the schools building programme). But, in general, movements in building costs have provided little cause for satisfaction to anyone not interested in their maintenance at, or increase to, high levels. Apart from high direct costs, delays in building and in settling building contracts have been a matter of deep public concern. So has the method of competitive tendering.

The anonymous apologist states that quantity surveyors estimate the approximate cost of work from architects' preliminary designs, in order "to help building owners to budget for their expenditure at an early stage." My own experience, as a member of one or two composite bodies, is that the sum so budgeted has, in almost every case, and through no fault of the building owner, proved deficient, sometimes by large amounts; nor is this experience at all unusual.

The author tells us that the system of measurement normally adopted is one agreed by a Joint Committee, and set out in the Standard Method of Measurement of Building Works. Standardisation may well be better than multiplicity of form; but that is not the point. The question is whether the standard form when used in the way that it is, and with the tendering system of this country, is not part of an over-elaborate system. My contention is precisely that the present system, taken as a whole, is too elaborate, and brings the quantity surveyors', and the estimators', skills to bear at the wrong point.

It must be clear to anyone, even to an interested party, that the use of bills of quantities for certain contracts would result in an increase in the contract price, for example, on a small contract, the tenderers for which, though technically efficient as builders, might be not very well acquainted with the procedure. This surely is a matter beyond dispute. But if the difficulty can arise for the small contract it is not clear whether it is avoided to the advantage of the building owner in the case of the larger contract. If the builder who wins the contract employs a first class estimator, and uses his skill in the interest of his client, all may go well. But the system of pricing each item in a bill of quantities as the essence of the contract itself encourages difficulties over variations, or what would be called extras on a fixed price contract. As the writer correctly remarks, the quantity surveyor does not control costs within the building industry, nor is it clear on whom responsibility for that control now rests—yet a divided responsibility is precisely the evil to avoid.

Records of costs are, of course, kept in the building industry, but I must leave the reader to judge what the author means when he speaks of "periodical checks" on the cost of materials "to gauge the output of labour generally." Whatever this means, it seems to have little relevance to relating actual incurred costs to estimates of unit cost. The author mentions the wide variations in man-hours reported on housing. How great a proportion of these variations were foreseen in estimating the labour time required? Whichever way the facts are looked at, the present system of controlling costs would seem in need of some re-examination and reform.

The slightly ludicrous notion that button manufacturers can "use their costs again and again with slight variation" takes the quantity surveyor outside his own field, so perhaps it is unfair to remark upon it; but unfortunately it is symptomatic of the attitude which he has adopted. Costs in manufacturing present by no means the simple problem which he seems to imagine, yet they are brought under control; there is no profession of button-measurers, however, and manufacturing manages to survive.

Working to a fixed price is a salutary discipline for any producer. If drawings and specifications were complete before tendering began, there would seem to be no good reason why variations should play such a part as they do in British practice; if there were any variations they should be agreed, and costed, before the work was executed. If this system were followed—it would demand changes in practice by all the parties concerned, including architects, builders and building owners—the quantity surveying system at present followed would become redundant. Delays in payment would be minimized. That the method can in practice be sound has been proved in other countries, and in constructional industries other than building with not dissimilar problems of tendering. Estimating skill, and exact technical measurement and supervision, would still be required, but would be strictly geared to the builders' problem of keeping within their quoted price, and to the owners' problem of securing the quality of building for which they intended to pay.

THE INDUSTRY

Brian Grant this week devotes his report from the Industry to descriptions of household equipment on view at the Ideal Home Exhibition.

To an increasing extent the Ideal Home Exhibition, Olympia, is becoming the occasion for announcing new items of equipment, particularly new cookers, kitchen equipment generally, and domestic heating appliances. This year is no exception, and in spite of the lack of most of the individual stand lighting there are quite a number of new cookers and refrigerators to be seen.

Dealing first with cookers, there are two new gas and no less than five electric types, though there is not space to illustrate and describe them this week.

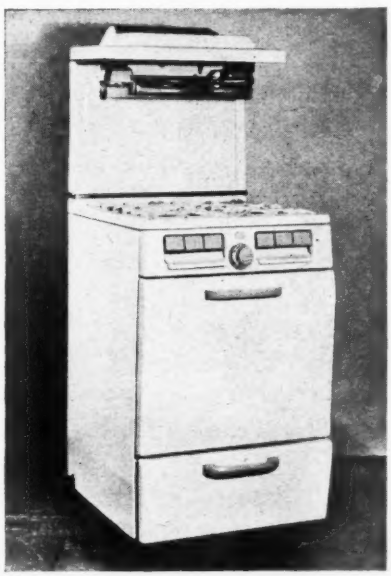
GAS COOKERS

The Parkinson Renown Mark V is a large capacity cooker which includes most of the latest design developments, and has an eye-level griller, self-lighting burners and a drop-down oven door. The grill is made in two halves, each of which can be separately controlled, or the two halves used together. The hot-plate burners have large trays for spilt liquids. An important result of raising the grill to eye level is that the oven can then be raised so that it is immediately beneath the hot-plate, and this in turn allows space for a useful warming drawer at floor level. The oven outlet is brought out at griller level so that the cooker can be mounted flush against the wall, while the canopy also provides further plate-warming space. Dimensions are 23 in. wide by 25 in. deep, with an overall height of 57 in. Gas industry price is £65 2s. including fitting. (*The Parkinson Stove Co. Ltd., Stechford, Birmingham* 9.)

Also shown is an advanced model of the De La Rue Warwick cooker. This is not yet in production and has not yet completed full gas industry laboratory tests, but it is expected to be in production about June this year. Here again there is an eye-level grill and plate-warmer, while the hot-plate has five full-size boiling rings and a built-in, four-hour timer for the oven, a device which I cannot remember having seen on a gas cooker before. Although the cooker is large enough for two dishes to be placed side by side on each shelf in the oven, it is only about 9 in. wider than the average gas cooker. Various colour finishes will be available. (*T. De La Rue & Co. Ltd., (Gas Division) Imperial House,* 84/86 *Regent Street, London, W.*1.)

ELECTRIC COOKERS

Among the electric cookers one of the most interesting is the English Electric type 2011. This has a fluorescent lamp over the three hot-plate hob, and a combined automatic timer and clock with which the oven can be set to turn itself on and off again at any pre-selected time. There is also a ringing timer which can be set, like that on the De La Rue cooker, to act as a warning



Two gas cookers. Above, the Parkinson Renown Mark V. Right, the De La Rue Warwick cooker.

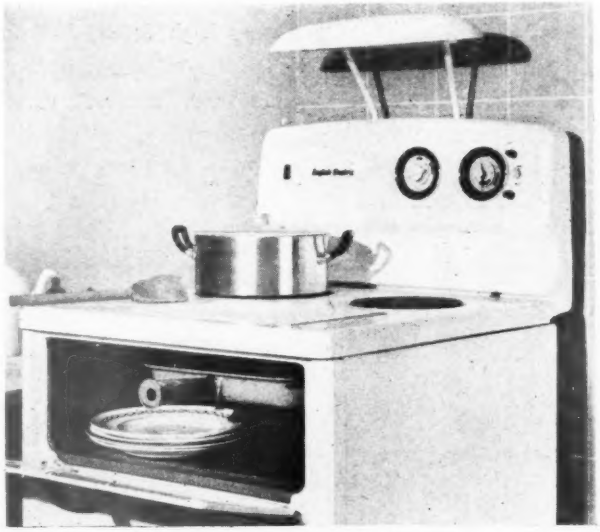
and reminder at any selected interval up to four hours. The oven, as one now assumes, has a thermostat, and all the hot-plates have Simmerstat controls: there is also a separately switched 3 kilowatt socket, built in to the side of the splashback, for kettles or toasters. Dimensions are 22 in. wide, 24 in. deep, and 52¼ in. high overall (including the light fitting); the hot plate height is 36 in. (*The English Electric Co. Ltd., Queens House, Kingsway, London, W.C.2.*

The other electric cooker illustrated here is the Creda Super Comet. This is another large job, corresponding roughly in size to the De La Rue Warwick, and has a large oven, a four-plate hob, with a separate grill, plate-warming drawer and storage space. All the switches are grouped in a lighted panel at the back of the hot plate, where there is also an adjustable on and off timer and clock, as in the English Electric model. There is, of course, a thermostat, the oven door is bottom hung, and inside the oven is a light controlled by the opening of the door. There are four other models of this cooker, with three or four hot-plates, each model being produced either with the floor level storage space, or with the doors omitted and the cooker mounted on legs. (*Simplex Electric Co. Ltd., Creda Works, Blythe Bridge, Staffs.*)

An auto-gas Electric washing machine, made by the Economic Gas Boiler Co. Ltd.

A WASHING MACHINE

One of the more interesting developments in washing equipment is the auto gas electric machine. Within their accepted limits gas-heated coppers have always been quite satisfactory, but they have had the disadvantage that mechanical agitation was not possible. Similarly, electric machines have only recently been provided with means for heating the water. The type illustrated here has a gas-heated pan which will take up to 9 lb. of clothes, an electrically-driven agitator and a power drive to the wringer, the pressure of which is adjustable. When the washer is not in use there is an enamelled top cover which provides a useful working surface. Price is £50 plus £21 5s. purchase tax. (*Economic Gas Boiler Co. Ltd., Junction Mills, Burnley, Lancs.*)



Two electric cookers. Above, the Creda Super Comet, made by the Simplex Electric Co. Ltd. Right, the English Electric type 2011.

REFRIGERATORS

Refrigerators are now much easier to obtain, and, judging by recent price cuts, are becoming more difficult to sell. One new model, by Prestcold, is designed as a quick freezer for home-grown foods, or vegetables bought in quantity when prices are low, and several other models have a compartment above the ice-cube trays, inside the cooling unit, for the storage of quick frozen food bought in packets; these need a lower temperature if they are to be kept for any length of time. (*The Pressed Steel Co. Ltd., Cowley, Oxford.*)

Electrolux have a new 5 cu. ft. model, the L 500. There are two shelves on the inner face of the door to take bottles and narrow food packets. This model is produced for town or bottled gas, electricity or paraffin, only the latter model not having thermostatic control. Average consumption per 24 hours are 2¼ units of electricity, 36 cu. ft. of town and 5 cu. ft. of bottled gas, or 1¼ pints of paraffin. There is an internal light operated by the door handle, which is also lockable. Space is also provided for the storage of frozen food. Dimensions are 4 ft. 5¼ in. high, 2 ft. 2¾ in. wide and 2 ft. 3¼ in. deep, plus a further inch for the handle: price is £81 10s. plus purchase tax and the cooling unit is guaranteed for five years. (*Electrolux Ltd., 153/155 Regent Street, London, W.1.*)

The Main 3·2 cu. ft. model is the first, so far as I know, to have a ten-year guarantee for the freezing unit, and it sells at £56 14s. plus purchase tax. In addition to the usual ice trays (32 cubes or 2 lb.) there is storage for about 4 lb. of frozen food. Dimensions are 24½ in. wide by 24½ in. deep, with a height of 3 ft. 10¼ in. The gas control tap has a de-frosting position, and

St. Stephen's House, Exeter. Architects: Alec F. French & Partners F/L.R.I.B.A. Contractors: Sir R. McAlpine & Sons Ltd. Bricks supplied by J. W. Truman Esq., Fishponds, Bristol.

Ibstock Facings in Exeter

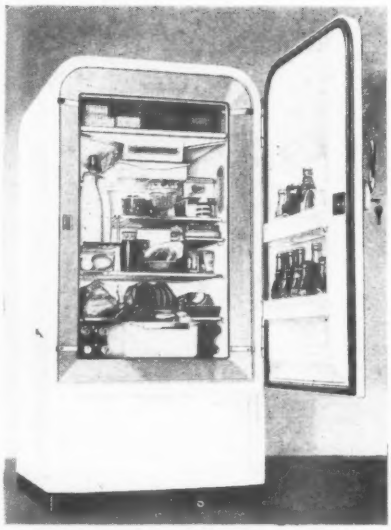
The re-building of the central area of the city of Exeter is among the first tasks in the realisation of "Exeter Phoenix". For this fine corner block of shops and offices in Exeter High Street, Ibstock Buff-Multi facings were selected for use in conjunction with Portland stone dressings.

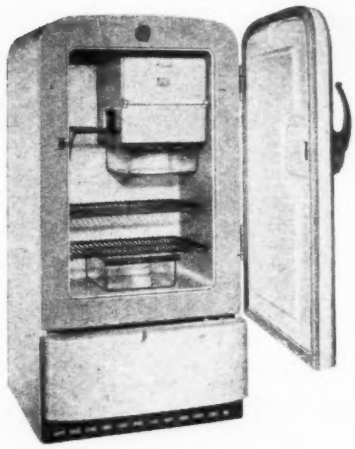
Owing to present demand, supplies of facing bricks of most types are booked for a long time ahead and reservations for 1954/5 are now being made.

Ibstock FACINGS for Colour

IBSTOCK BRICK & TILE COMPANY LIMITED, Near Leicester.
London: L.M.R. Goods Depot, Wright's Lane, Kensington, W.8.

Telephone: Ibstock 391 (2 *lines*).
Telephone: Western 1281 (2 *lines*).





Three gas refrigerators on view at the Ideal Home Exhibition. Above left, the Electrolux type L.500. Above, the Main type 32 free-standing refrigerator. Left, another free-standing type by Astral Equipment Ltd.

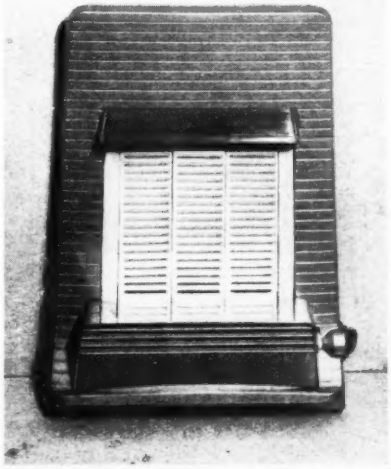
there is a flint lighter, operated from the front of the cabinet, for the gas jet. (*R. & A. Main Ltd.*, 48, *Grosvenor Gardens, London, S.W.*1.)

Produced for use with either gas or electricity, there is a new 1½ cu. ft. Astral free-standing model selling at £44 18s. including purchase tax. This has a useful storage drawer below the refrigerated space, but is otherwise the same as the table model, which is priced at £39 18s. including purchase tax. Consumption of both types is about 1½ units of electricity per day (AC or DC) $\frac{1}{10}$th therm of town gas per day, or 20 cu. ft. of bottled gas per week. Dimensions are 20½ in. wide by 21¼ in. deep by 36 in. high for the free-standing type, the corresponding figures for the table model being 21¼, 22¾ and 24½ inches. Both types have a cooling unit which is guaranteed for five years. (*Astral Equipment Ltd.*, 96, *Buchanan Street, Glasgow C.*1.)

First introduced at the Catering Exhibition, the Prestofreeze Junior is an electric model with a capacity of just over 4 cu. ft., selling at £117 4s. 6d. including purchase tax, and with a five year guarantee. Inside are four large wire basket containers, and about 10 to 15 lb. of food can be frozen at a time, the total capacity of the unit being about 120 lb., though this figure will depend to a great extent on whether meat or vegetables are being stored. (*The Pressed Steel Co. Ltd., Cowley Oxford.*)

A GAS FIRE

Also illustrated here is a new gas fire which, like the Warwick cooker, has not yet passed its final laboratory tests and is not yet in production. It is the Cannon type K11. It has a new type of radiant which also contains the combustion chamber: tests by the manufacturers show that with a gas consumption of 36 cu. ft. per hour there is an increase of 15 per cent. in the heat emitted over other types of neat flame fires. The fire surround is a large pressure die-casting with a canopy and fender top in a magnesium alloy which should retain its polish for a considerable time. (*Cannon (GA) Ltd., Deepfields, Bilston, Staffs.*)



The Cannon type K11 gas fire.

INFORMATION CENTRE

A digest of current information prepared by independent specialists; printed so that readers may cut out items for filing and paste them up in classified order.

6.46 planning: social and recreational

ATMOSPHERIC POLLUTION

Various Articles. (The Sanitarian. Feb., 1954.)

This issue of the Sanitarian contains several articles dealing with atmospheric pollution and smoke abatement. One is on the town of Widnes and one on Manchester. Most interesting is a paper by E. T. Wilkins, of the Fuel Research Station, on Air Pollution and the London Fog of December, 1952. This gives detailed data showing the amount of smoke and other pollution and the very close relationship between pollution and increased death rate. Incidentally it suggests that the increase in deaths during that winter was more likely 12,000 than the commonly quoted figure of 4,000, and it also largely disposes of the suggestion that the deaths might have been only slightly hastened by the fog conditions. The broad issues of atmospheric pollution dealt with in these various papers are, or should be, of considerable interest to architects.

10.110 design: building types

HAY BARNS

Concrete Hay Barns with Pitched Roofs. BS 2072:1954. (British Standards Institution. 2s. 6d.)

Requirements for pre-cast concrete hay barns. Spans of 24 ft., 27 ft., and 30 ft., with trusses at 15-ft. centres. Heights 15 ft. and 18 ft.

15.116 materials: applied finishes, treatments

DECORATING COSTS

Decorators' Estimating. J. A. Evans and C. P. Sharp. (Cleaver-Hume Press Ltd. 1953. 15s.)

Details on how to estimate costs. A useful book for the painting and decorating contractor, but only of very occasional use to the architect.

22.66 sound insulation and acoustics

ELECTRONIC SOUND ABSORBER

Electronic Sound Absorber. H. F. Olson and E. G. May. (Journal of the Acoustical Society of America. Vol. 25, No. 6, Nov., 1953.)

More evidence that practically anything can be done by electronics. The ingenious device described is of interest but limited application.

The falling efficiency of most types of sound absorbent (particularly the proprie-

A machineshop bay with Lloyd roof insulation at the Ransome & Marles Bearing Company's works at Newark-on-Trent

BUT NOT ONLY THAT . . .

. . . Ransome & Marles found that insulation paid other dividends. The boiler plant, previously over-loaded and unable to keep the shops warm, has now enough reserve capacity to heat a considerable works extension. Draughts which, in the uninsulated shops, were caused by downward currents of air chilled by contact with the single-skin sheeting of the roof, have disappeared. The shops are much cleaner for the roof lining is an excellent seal against dust. (Most important, this, in the manufacture of ball and roller bearings). It is also an excellent reflector and the lighting is better and more even. These improvements in working conditions have had a direct effect on the health of the employees. Absenteeism has dropped and so has the accident rate : output has gone up. The whole of this roof insulation was installed in a few weeks without interrupting the work in the shops.

For more information about Lloyd insulation, have a word with

BOWATERS BUILDING BOARDS LIMITED

BOWATER HOUSE, STRATTON STREET, LONDON, W.1. Telephone: GROSVENOR 4161

tary "noise reducing" types) in the lower frequency range is well known. This article describes an apparatus consisting of a special microphone, thirteen valve amplifier and loudspeaker which reduces low frequency noise over a limited space by producing a cancelling (out of phase) sound wave. The applications suggested are for use by passengers in aircraft and cars, or for workers operating noisy machines.

The performance figures quoted show that a substantial reduction in sound level (10 db in the low frequencies) is obtained at a distance of 10 in. from the unit, but it would appear that there would be no perceptible improvement at distances exceeding about 5 ft. The frequency range covered is from about 30 to 150 c/s, and therefore does not cover the part of the sound spectrum where the ear has its maximum sensitivity and sound can cause greatest annoyance. Unfortunately the higher frequency noises produced by high-speed machinery, jet aircraft and aerodynamic effects are unlikely to be alleviated. Other proposed applications are for the reduction of low-frequency sounds in the noise output of ventilating plant, machines, and engine exhausts. Finally, it is stated that the electronic sound absorber can be used in the same manner as conventional wall materials for the absorption of sound in the low-frequency range, provided it is conceivable that the cost could be brought low enough to justify its use economically.

23.194 heating and ventilation
DOMESTIC HEATING

The Melchett Lecture for 1953: *"The Domestic Appliance Industry and Fuel Usage in Great Britain."* Harold Hartley. (Journal of the Institute of Fuel. Nov., 1953.)

There have been important developments recently in the design of open fires and several versions of the "utility" stand-in replacement fire have been marketed. These incorporate flue restrictors to reduce the withdrawal of heated air from the room, and also provide convection from the sides of the appliance. They have a higher efficiency than the stool bottom grate and have been designed primarily to burn bituminous coal. In this lecture, the Chairman of Radiation Ltd. traces the development of open fires and suggests that the next important step will be to dispense with the normal fireplace surround, and instal the open fire standing freely in the middle of a recess. This would ensure maximum convection into the room and the provision of a damper in the flue connector could avoid excessive air flow. This suggestion (which is put in the form of a challenge to architects) has much to recommend it and would appear to merit encouragement.

The paper also contains a discussion of appliances for cooking and water heating and concludes with a survey of the domestic fuel problem.

24.168 lighting
INDUSTRIAL LIGHTING MAINTENANCE

Maintenance of Industrial Lighting—Part II. C. E. Egeler and R. F. Vanden Boom. (Journal of Illuminating Engineering Society, USA. Dec., 1953.)

At first sight this record of field tests may appear to be of more direct concern to lighting engineers than architects, but it holds a rather special interest insomuch as it gives a practical comparison of the rates of depreciation of the illumination through dirt on lighting equipment for various types of industrial processes. It also shows the influence of illumination depreciation on the economics of industrial lighting.

The test was started with clean lamps and fittings and extended over a period of two years. Throughout the first year monthly illumination measurements were taken and then less frequently since the rate of change of illumination level had decreased considerably. At the end of the test foot-candle readings were taken before and after cleaning lamps, so that the depreciation on lamps could be separated from the reflection depreciation. For the purposes of the test the dirt on walls, ceiling and floor surfaces was ignored.

The fittings were two lamp fluorescent luminaires (*i.e.*, troughs) of the closed top, open ended, industrial type. With the exception of the Office and Core Room, all fittings were finished in synthetic enamel to provide a direct comparison. The percentage depreciation in light output for the various work areas was summarized as shown in table I.

In general it was noted that cleaning the lamps alone had less effect on the illumination than cleaning the reflectors; exceptions were the office where practically all the dirt was deposited on the lamps and the woodworking shop, where the sawdust, having a relatively high reflectivity, produced little effect on the efficiency of the reflector, but because of its low transmittance was capable of affecting lamp output seriously.

Maintenance factors for the various work areas were computed, the number of cleanings per year partially determining the maintenance factor to be used. By comparing the overall costs, including cleaning, with the resulting increase in maintenance factors, the relative overall cost of light was obtained for various cleaning schedules. The detailed figures as summarized in Table III of the paper are not necessarily valid for this country, but do suggest broadly that although no one cleaning schedule is most economical in all areas, some periodic cleaning is always justified; furthermore, that in most of the areas tested either two or three cleanings per year produce the greatest economies. It was also noted that longer burning hours justify more frequent cleaning.

The article concludes with comments on the correlation between the decrease in illumination and the depreciation of reflectance of test plates.

TABLE I.—LAMP DIRT v. LUMINAIRE DIRT

Area.	Lamp Wattage and Reflector Finish	Total Luminaire Depreciation (Dirty Lamps and Reflectors)	Reflector Depreciation (Clean Lamps and Dirty Reflectors)
Office ..	40, Aluminium troffer	6%	Negligible
Refrigerator storage*	40, Synthetic enamel	11%	9%
Refrigerator laboratory	40, Porcelain enamel	18%	14%
Wood-working	40, Synthetic enamel	27%	8%
Heavy m/c shop	40, Synthetic enamel	28%	16%
Core room	90, Porcelain enamel	38%	23%
Welding shop	40, Synthetic enamel	44%	36%
Foundry ..	40, Synthetic enamel	56%	49%

* 12 month values—all others are 25 month depreciation

Readers requiring up-to-date information on building products and services may complete and post this form to the Architects' Journal 9, 11 and 13, Queen Anne's Gate, S.W.1

ENQUIRY FORM

I am interested in the following advertisements appearing in this issue of "The Architects' Journal." (BLOCK LETTERS, and list in alphabetical order of manufacturers names please.)

.....

.....

.....

Please ask manufacturers to send further particulars to :—

NAME .....

PROFESSION or TRADE

.....

ADDRESS .....

.....

18.3.54

Buildings Illustrated

Extensions to the Ealing Technical College and School of Art, St. Mary's Road, Ealing, London, W.5, for the Middlesex County Council. (Pages 342-346.) Architects: C. G. Stillman, F.R.I.B.A., County Architect, A. J. Bunce, A.R.I.B.A., Area Architect, B. S. Roberts, A.R.I.B.A., and E. F. Stronach, A.R.I.B.A., Asistant Architects. General Contractors: Prestige & Co. Ltd. Sub-contractors: Facing bricks, Finnis, Rualt & Nichols Ltd.; asphalt, Highways Construction Ltd., Brights Asphalt Ltd.; heavy fuel store covers, Adams Hydraulics Ltd.; damp-proof course, George M. Callender & Co. Ltd.; structural steel, Boulton & Paul Ltd.; stone and travertine, Anselm Odling & Sons Ltd.; metal door frames, F. Braby & Co. Ltd.; artificial Clipsham stone and granite, Liverpool Artificial Stone Co. Ltd.; ash hoist, G. Johnson Ltd.; precast stone stairs, W. S. Try Ltd.; studio north lights and skylights, Standard Patent Glazing Co. Ltd.; metal windows, John Thompson Beacon Windows Ltd.; ironmongery and steel doors, James Gibbons Ltd.; lifts, Waygood-Otis Ltd.; sanitary fittings, Adamsez Ltd.; flag staff, J. W. Gray & Son Ltd.; precast concrete windows, J. A. King & Co. Ltd.; external concrete rendering, Campbell Horne & Co. Ltd.; woodblock flooring, semastic tiling, Horsley Smith (Hayes) Ltd.; plumbing, Richard Audrey Ltd.; cellar flaps, Luxfer Ltd.; terrazzo, Terrazzo & Tile Products Ltd.; handrails and gates, William Pickford Ltd.; flush doors, cupboard units and enquiry desk, D. Burkle & Son Ltd.; revolving blackboards, Wilson & Garden Ltd.; frames and glazing to showcases, A. Edmonds & Co. Ltd. W.C. partitions, Venesta Ltd.; revolving door, F. Sage & Co. Ltd.; suspended ceiling lathing, adjustable louvres, W. H. Colt (London) Ltd.; drinking fountains, T. A. Harris Ltd.; adjustable louvres, Roberts Adlard & Co. Ltd.; paint, Leyland Paint & Varnish Co. Ltd.; curtain tracks, Lockerbie & Wilkinson Ltd.; cork flooring, Korkoid Decorative Floors; steel ladders, coat hangers and hooks, Clark Hunt & Co. Ltd.; laboratory fittings and lecture theatre seats, Sotos Ltd.; library fittings, Walker Symondson Ltd.; window balconies, Adrian Stokes Ltd.; anti-vibration mountings, Silentbloc Ltd.; wood handrailing, F. J. Lewis Ltd.; steel cycle stands, Alfred A. Odoni & Co. Ltd.; toilet roll holders, R. Sculthorp & Co. Ltd.; paving to car park, W. & J. Glossop Ltd.; precast concrete slabs, Conallcrete Ltd.; bronze fascia letters, James Gibbons Ltd.; external tiling, F. & E. Eastman (England) Ltd.; paving slabs, F. Bradford & Co.; precast curbs, Wettem Bros. Ltd.; room labels and numbers, London Name Plate Mfg. Co. Ltd.; topskin to fabric printing benches, Macclesfield Eng. Co. Ltd.; heating, hot water, gas and ventilating installations: Fretwell Heating Co. Ltd.; installation of electric lighting, heating, power, wireless, fire alarm, telephone and clock services, Electrical Installations Ltd.; lightning conductors, R. C. Cutting & Co. Ltd.; boilers, Hartley & Sugden Ltd.; private automatic exchange and staff location system, Standard Telephones & Cables Ltd.; ventilated spray booth, Nye & Langston Ltd., Aerograph Co. Ltd.; electric clocks, Gent & Co. Ltd.; ventilation to fume closets, Nye & Langston Ltd.; lighting fittings, Holophane Ltd., Fred. Thomas Ltd., Benjamin Electric Ltd., Merchant Adventurers of London Ltd., Mek-Elek Engineering Co. Ltd., Revo Electric Co. Ltd., British Thompson Houston Co. Ltd., General Electric Co. Ltd., Hume Atkins & Co. Ltd., Falk Stadelman & Co. Ltd.; batteries and "Keepalite" plant, Chloride Batteries Ltd.; main switchboard, Parmiter, Hope & Sugden Ltd.; electric lifts, Waygood-Otis Ltd.; fire alarm equipment, Julius Sax & Co. Ltd.

Some BOOKS on English architecture and social life

The Architecture of England by Frederick Gibberd, F.R.I.B.A., A.M.T.P.I. This popular book (70,000 copies of it have already been sold) presents in text and pictures the complete evolution of English architecture and explains, briefly, its relation to the historical background and social life of the times. Size 11½ ins. by 9 ins. 48 pages, with over 150 drawings and about 80 halftone illustrations. New edition (70th thousand). 10s. 6d. net, postage 7d.

English Architecture at a Glance by Frederick Chatterton, F.R.I.B.A. Illustrated by J. D. M. Harvey, B.A. A simple review in pictures of the chief periods of English architecture, accompanied by brief historical notes on the various styles and their details. Nearly 100,000 copies of it have already been sold, and its popularity is accounted for by the fact that it enables the amateur to identify the periods literally "at a glance." It contains over 90 line drawings and some halftone illustrations. Size 8¼ ins. by 5½ ins. Eighth Impression of the Fifth Edition. 4s. 6d. net, postage 3d.

A History of the English House by Nathaniel Lloyd, O.B.E. The most authoritative and exhaustively illustrated history of the English house ever published. 498 pages with 900 illustrations. Size 12¼ ins. by 9 ins. £3 13s. 6d. net, postage 1s. 10d.

A Miniature History of the English House by J. M. Richards. Specially written for those who need a small inexpensive handbook on the English house, this is a complete outline history of our domestic architecture from primitive hut to present-day house. Many illustrations are drawn from the late Mr. Nathaniel Lloyd's standard work (described above); but Mr. Richards' text is entirely original and, moreover, continues beyond the early 19th century, tracing the subsequent development of the house down to the nineteen-thirties. Size 8¾ ins. by 5⅝ ins. 72 pages with over 90 illustrations. Seventh impression. 4s. 6d. net, postage 3d.

Parliament House: the Chambers of the House of Commons by Maurice Hastings, Ph.D. To understand the traditional plan adopted for the new Chamber of the House of Commons we have to go back to 1547 when the King's chapel of St. Stephen's became the home of the Commons. Dr. Hastings makes a brilliant and learned reconstruction of this place where so many high events and great Parliamentarians moved; he also describes Barry's Chamber and that opened in 1950, designed by Sir Giles Gilbert Scott, showing how the choir-stall seating plan has continued unchanged through the centuries. Bound in full cloth boards. Size 8½ ins. by 5½ ins. 200 pages with 78 illustrations. 12s. 6d. net, postage 6d.

English Panorama by Thomas Sharp, M.A., D.Litt. The first carefully studied and original account of the evolution down the centuries of the English scene in town and countryside, this book ends with a penetrating analysis of the problems of town and country planning which now confront us. First published in 1936, it has now been revised with much new material and is almost entirely newly illustrated. Bound in full cloth boards. Size 8½ ins. by 5½ ins. 148 pages, with over 50 halftone and line illustrations. 12s. 6d. net, postage 6d.

English History at a Glance: a chart designed by H. A. Vetter. With a historical digest by Peter Dantry and Ernest Savage. Dr. Vetter's large coloured chart is an original method of presenting history in a visual way. It is divided vertically by lines representing dates and horizontally into a series of different sections which cover the following subjects: The Land, Science, Economics and Social History, Exploration, Politics, Literature, Drama, Painting, Sculpture, Architecture, Music, Religion and Philosophy. On their correct date-lines, and in their appropriate sections, appear the names of the men who have influenced the development of English life and achievement; and these are printed on coloured labels representing the period to which they belong. The historical digest which follows the chart gives a brief account of the development of each activity, and outlines the achievement of the men named in the chart. At a glance, therefore, the reader can follow the development of, say, literature through the centuries, and at a glance also, can see who was contemporary with whom—for instance, which writers were contemporary with which composers, and which prime-ministers with which philosophers, and so on. An unbelievably large amount of information in every field of English history, in its broadest sense, is contained in this book. Size 13¾ ins. by 10⅝ ins. Containing a coloured chart (6 pages), text (which includes 70 halftone illustrations), a bibliography and index. 8s. 6d. net, postage 8d.

A complete illustrated catalogue will be sent on application to
THE ARCHITECTURAL PRESS 9-13, *Queen Anne's Gate, London, S.W.*1.

Overseas: U.S.A.: The British Book Centre, Inc., 122 *East 55th Street, New York*, 22,, *N.Y., U.S.A. Canada: The British Book Service (Canada) Ltd.*, 1068 *Broadview Avenue, Toronto, Canada. South Africa: E. Maxwell Arnot, P.O. Box* 275, *Capetown, S.A.*

Royal Doulton acid proof white chemical stoneware pipe lines at the Imperial College of Science & Technology, South Kensington, showing the fixed flange method of jointing.

Fixed-flange METHOD OF JOINTING STONEWARE PIPES

In order to overcome certain of the disadvantages associated with both ' spigot and socket ' and ' conical flanged ' pipes, the Royal Doulton Potteries have introduced an improved method of coupling. Butt-ended pipes with ground end faces are coupled together by means of bolts passing through malleable iron or light alloy flanges permanently secured to the stoneware pipe. Advantages of this form of construction include:

- No change of section which might lead to weakness
- Lengths can be cut and flanges fixed *on site* if required
- The greater the pull on the bolts, the greater the grip of the flange on the pipe

Where fixed flange jointing is applied to Royal Doulton Acid Proof Stoneware pipes, these pipes retain all their outstanding qualities: These include:

- Resistance to all corrosive chemicals except hydrofluoric acid and hot caustic alkalis
- Corrosion-proof throughout thickness
- Easy to keep clean and contamination-free
- Superior mechanical strength
- Economical in outlay and upkeep

Write for details to:

DOULTON & CO, LIMITED, Industrial Ceramics Division, Dept. BE
Doulton House, Albert Embankment, London, S.E.1.

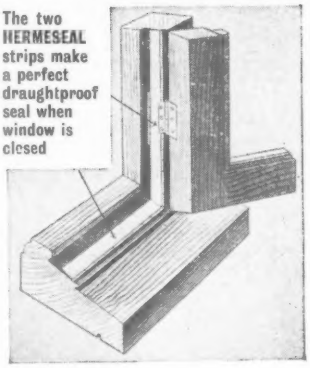
Royal
DOULTON
ACID-PROOF STONEWARE PIPES

Two ways to HEAT CONSERVATION

1 DRAUGHT EXCLUSION

will reduce the loss of heat through the average window by at least *half*, and through doors by an even greater amount. The actual rate of cold-air infiltration, the source of all draughts, can in turn be reduced by anything *up to* 95%, according to type of construction.

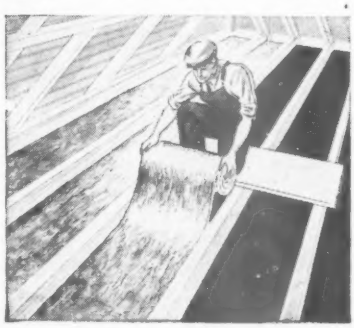
EXAMPLE: D/H Sash Windows of wood, 5′ 2″ x 2′ 8″, average length and width of gap, 18′ 0″ x ⅛″, average wind speed 10 m.p.h.



The two HERMESEAL strips make a perfect draughtproof seal when window is closed

BEFORE draught-exclusion = 1903.0 cu. ft. per h.r.
AFTER „ „ = 264.6 cu. ft. per hr.
PREVENTION achieved = 1643.4 cu. ft. per hr. or 86.1%

2 ROOF INSULATION



will reduce the loss of heat through a roof-area by *at least* 70%. This loss, in the average house, is about *one-third* of all the heat lost in various ways from the structure as a whole.

EXAMPLE: Average "U" values of a number of Pitched roofs of NEW *but varying construction. "U" = B.Th.U/sq. ft./hr./1 deg. F.*

BEFORE insulation (Desirable standard 0.20) = 0.43
AFTER insulation by 1″ bitumenised glass wool = 0.13
PREVENTION achieved = 0.30 or 69.7%

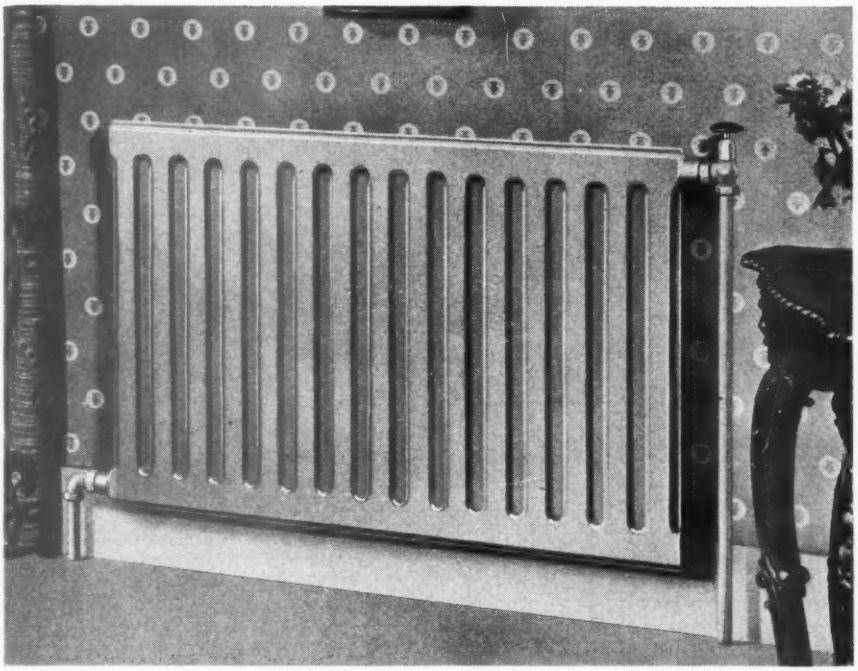
Specify DRAUGHT EXCLUSION and ROOF INSULATION by HERMESEAL. No higher degree of efficiency in the conservation of heat and the saving of fuel can be achieved in any already existing building. Surveys and installations are carried out by our own skilled staff throughout the country. Write for full details.

draught exclusion & roof insulation by

HERMESEAL

means warmer homes

BRITISH HERMESEAL LIMITED
Head Office: 4 PARK LANE, LONDON, W.1
Telephone : GROsvenor 4324 (5 *lines*)



LIGHT IN WEIGHT

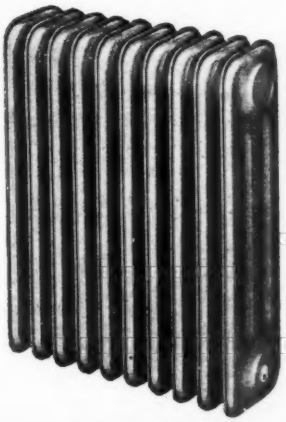
EASY TO PAINT AND CLEAN

ECONOMICAL TO FIX

COST LESS PER SQUARE FOOT

MAXIMUM FUEL ECONOMY

IMMEDIATE DELIVERY



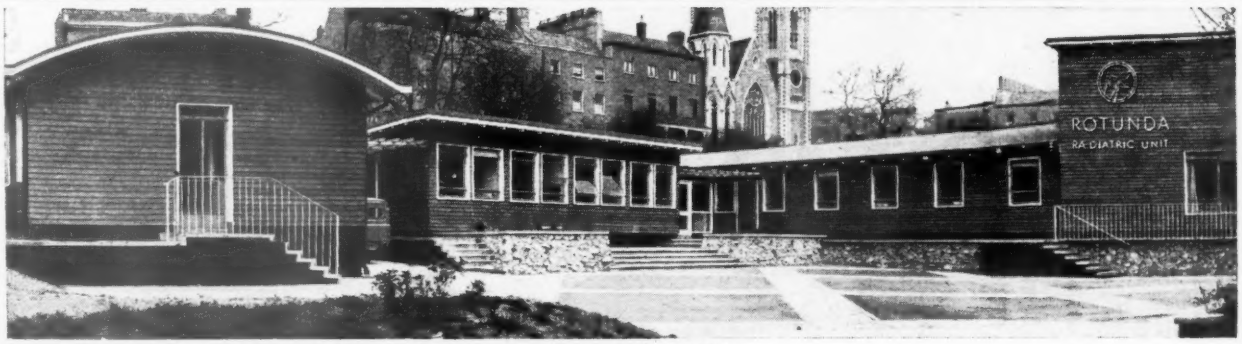
GULF RADIATOR

Specify **GULF** LONG LIFE **RADIATORS**

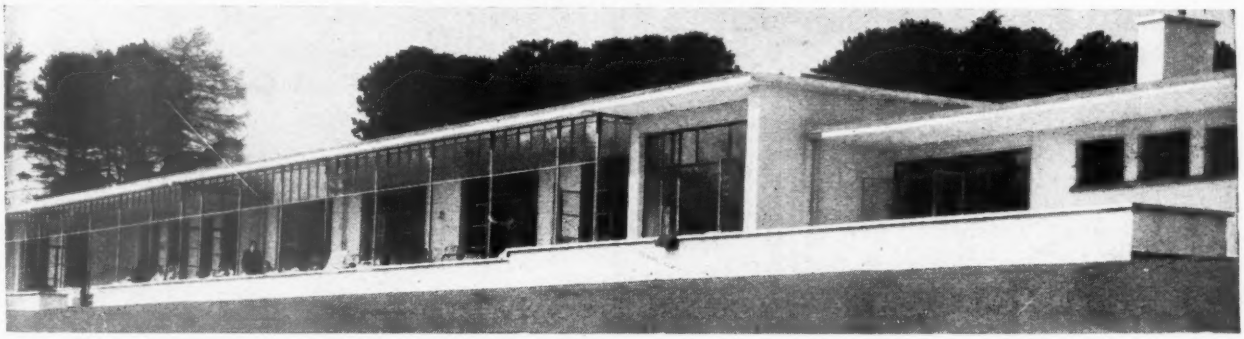
Gulf long life Radiators are available in a wide range of Column and Wall Panel types, in any length, and in curved and angled form. Gulf specialise in producing radiators for unusual and exacting requirements. Ask for our latest catalogue.

GULF RADIATORS LTD. Penarth Road, Cardiff. *Tel: 20591/2*

London Office and Showrooms, 229 REGENT STREET, LONDON, W.1. *Tel.: REGent 1051/6*



Rotunda Hospital, Dublin : New Radiatric Unit. *Architect : Alan Hope, B. Arch., A.R.I.B.A*



Newcastle Sanatorium, Co. Wicklow. *Architect : Alfred Phillips, M.R.I.A.I.*

Building in Ireland . . . ? Steel Windows by

SMITH & PEARSON LTD

STRUCTURAL ENGINEERS AND MAKERS OF FINE STEEL WINDOWS. GATES AND RAILINGS.

NEWCOMEN WORKS, OSSORY ROAD DUBLIN

CLASSIFIED ADVERTISEMENTS

Advertisements should be addressed to the Advt. Manager, "The Architects' Journal," 9, 11 and 13, Queen Anne's Gate, Westminster, S.W.1, and should reach there by first post on Friday morning for inclusion in the following Thursday's paper.

Replies to Box Numbers should be addressed care of "The Architects' Journal," at the address given above.

Public and Official Announcements

25s. *per inch; each additional line,* 2s.

The engagement of persons answering these advertisements must be made through a Local Office of the Ministry of Labour or a Scheduled Employment Agency if the applicant is a man aged 18-64 *inclusive or a woman aged* 18-59 *inclusive unless he or she or the employment, is excepted from the provisions of the Notification of Vacancies Order,* 1952.

LONDON COUNTY COUNCIL.
ARCHITECT'S DEPARTMENT.

Vacancies for TECHNICAL ASSISTANTS (up to £721) in Structural Engineering Division. Work includes steelwork and reinforced concrete design and detailing for Council's building, and checking structural designs and calculations under London Building Acts.

Application forms from Architect (AR/EK/SE/5), County Hall, S.E.1. (1270) 1057

COUNTY COUNCIL OF STIRLING.
COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the following appointments in the County Architect's Department:—

(*a*) TWO SENIOR ASSISTANT ARCHITECTS. A.P.T., Grade VIII (£795-£870).

(*b*) THREE ARCHITECTURAL ASSISTANTS. A.P.T., Grade Va (£660-£720) to Grade VII (£745-£820) (according to experience).

(*c*) THREE ARCHITECTURAL ASSISTANTS, ONE CIVIL ENGINEERING ASSISTANT. A.P.T., Grade I (£490-£535) to Grade V (£630-£680) (according to experience).

Candidates for (*a*) and (*b*) must be Associate Members of the Royal Institute of British Architects and have good experience in contemporary design and construction of Schools and General Buildings, preparation of working drawings, and supervision of building works.

Candidates for (*c*), Grades III, IV, and V, should have passed Intermediate R.I.B.A., and applicants for Grades I and II should be quick and accurate draughtsmen, having completed the recognised apprenticeship.

(*d*) ONE SENIOR ASSISTANT QUANTITY SURVEYOR. A.P.T., Grade VIII (£795-£870).

(*e*) THREE ASSISTANT SURVEYORS. A.P.T., Grade Va (£660-£720) to Grade VII (£745-£820) (according to experience).

(*f*) TWO JUNIOR ASSISTANT SURVEYORS. A.P.T., Grade I (£490-£535) to Grade V (£630-£680) (according to experience).

Candidates for (*d*) and (*e*) should be Associate Members of the Royal Institute of Chartered Surveyors, and have wide experience in the preparation of estimates, specifications, schedules of quantities, re-measurement and final accounts for general building works. Preference may be given to applicants with experience in School Buildings.

Candidates for (*f*) should preferably have passed the Intermediate R.I.C.S. and have a sound basic training in the profession.

The appointments will be subject to the provisions of the Local Government Superannuation Act, 1937, and the successful candidates will require to pass a medical examination.

Applications, stating age, qualifications, experience and post applied for, accompanied by copies of recent testimonials, should be lodged with the undersigned not later than 29th March, 1954.

JAMES D. KENNEDY,
County Clerk.

County Offices, Viewforth, Stirling. 1907

CORPORATION OF LONDON.

Applications are invited from Chartered Architects, between 30 and 45 years of age, for the appointment of ARCHITECTURAL ASSISTANT (Auxiliary Staff), in the Surveyor's Department, in connection with design and construction of large war damaged buildings and supervision of contracts.

Applicants must have good practical experience in preparation of surveys, working drawings, ½-inch and full-scale details, and sound knowledge of conducting contracts and control of staff.

Salary offered is within the range £845 by £25 to £1,010 per annum (including cost-of-living addition); commencing salary according to qualifications and experience.

The appointment is subject to medical examination and contribution to the Corporation's Superannuation Fund.

Applications, giving full personal details, particulars of qualifications, age, past and present appointments, and the names of two referees, must be sent to the City Surveyor, 55/61, Moorgate, London, E.C.2, not later than Wednesday, 24th March. 1921

BATTERSEA BOROUGH COUNCIL require ASSISTANT ARCHITECT. Should be Associate of R.I.B.A. Salary according to qualifications: £735-£810, plus London weighting (A.P.T., VII). L.G. Supn. Act. Application forms from Borough Engineer, Town Hall, Battersea, S.W.11. Closing date: 31st March. 1989

AYCLIFFE DEVELOPMENT CORPORATION.
ARCHITECTURAL AND QUANTITY SURVEYING STAFF.

Applications invited for the following appointments:—

ARCHITECTURAL ASSISTANT. £695-£760 p.a. (Grade A.P.T., VI). Applicants should be Associate Members of the R.I.B.A., and have had at least three years' varied experience, including the administration of contracts.

ASSISTANT QUANTITY SURVEYOR. £735-£810 p.a. (Grade A.P.T., VII). Applicants should be Associate Members of the R.I.C.S. or approaching that standard. Must be capable of taking off quantities, preparing bills of quantities, completing measurements, and preparing final accounts.

Appointments subject to N.J.C. Conditions, Superannuation, and medical examination.

Housing accommodation if necessary.

Applications, together with names of two referees, to arrive not later than 3rd April, 1954.

A. W. THOMAS,
General Manager.

Newton Aycliffe, Co. Durham. 1987

WELSH REGIONAL HOSPITAL BOARD.
ARCHITECT'S DIVISION.

Applications are invited for the post of ASSISTANT QUANTITY SURVEYOR.

Salary: £600 × £25 (7) × £30 (3)—£865 p.a. The starting salary may commence above the minimum of scale where experience at full professional standard is shown.

Applicants must hold Corporate Membership of the Royal Institute of Chartered Surveyors, and have experience in taking off and preparing Bills of Quantities and Final Accounts, etc.

The person appointed will be engaged upon the preparation of Bills of Quantities and Final Accounts, Site Measurements and Valuation for interim certificates, etc., on Capital Works throughout Wales, including quantities in connection with Engineering Services.

The appointment is superannuable and terminable by one month's notice on either side.

Applications, stating age, experience, qualifications and present position, together with names and addresses of two referees, should be addressed to the Secretary, Welsh Regional Hospital Board, Temple of Peace and Health, Cathays Park, Cardiff, within 14 days of the appearance of this advertisement. 1988

BATHAVON RURAL DISTRICT COUNCIL.
APPOINTMENT OF ARCHITECT.

Applications are invited for the above appointment in the Surveyor's Department, at a salary in accordance with Grade VII of A.P.T. Division of the National Scales of Salaries, the commencing salary to be fixed within that Grade according to the experience of the successful applicant. A travelling allowance at the appropriate rate will be paid.

Candidates should be qualified Architects, preferably with local authority experience in layout, house design, preparation of working drawings, specifications, supervision, and final settlement of accounts. The appointment will be subject to three months' notice on either side, to the National Scheme of Conditions of Service, and the Local Government Superannuation Acts. The successful candidate will be required to pass a medical examination.

Canvassing will disqualify, and applicants must state whether they are related to any member or senior officer of the Council.

Applications, stating age, present and previous appointments, qualifications and experience, and naming two referees, should be addressed to the undersigned not later than the 2nd April, 1954.

S. G. FOXTON PRICE,
Clerk of the Council.

Council Offices, Westgate Buildings, Bath. 1990

OXFORD REGIONAL HOSPITAL BOARD.

Applications are invited from qualified persons for the post of ASSISTANT QUANTITY SURVEYOR in the Regional Architect's Department.

Salary scale: £600 × £25 (7) × £30 (3)—£865 p.a. Starting salary may be above the minimum, according to years of experience since qualifying, subject to a maximum of not more increments than the years by which a candidate's age exceeds 25. Compulsory Superannuation. A car is desirable.

Applications, stating age, training, qualifications (giving dates), previous experience and present salary, with the names of two referees, should be submitted to the Secretary, Oxford Regional Hospital Board, 43, Banbury Road, Oxford, by not later than 30th March, 1954. 1986

HACKNEY BOROUGH COUNCIL require TWO ARCHITECTURAL ASSISTANTS. Salary for each appointment within A.P.T. Division, Grades III-IV (£550-£625 per annum, on and after 1st April, 1954). London weighting allowance also payable.

Candidates must have had a good architectural training, and must have passed the R.I.B.A. Intermediate or equivalent examination.

Apply to Town Clerk, Town Hall, Hackney, E.8, for application form. 2004

BRADFORD DIOCESAN DILAPIDATIONS BOARD.

Applications are invited for the post of DIOCESAN SURVEYOR, to assess improvements and repairs to parsonage houses and Glebe buildings in the Archdeaconry of Bradford.

Please communicate with Fredk. A. T. Mossman, Secretary to the Board, Thorpe Chambers, Hustlergate, Bradford. 1999

GOVERNMENT OF NORTHERN IRELAND.
VACANCY FOR ARCHITECT.

Applications are invited from Registered Architects for a post in the Ancient Monuments Branch of the Ministry of Finance. The post is an unestablished one, but the successful candidate will be considered for promotion and for permanent and pensionable posts, as vacancies arise.

Salary: £675 × £25—£750 × £30—£960 × £40—£1,000.

Entry point depends on age. Minimum of scale is linked to age 26, with an increase of one increment for each year above that age, subject to a maximum entry point of £900.

Applicants should have specialised knowledge of the maintenance and preservation of ancient monuments, and have had experience in the study and recording of archæological sites and historic buildings. Proficiency in draughtsmanship and photography would be an advantage.

Preference will be given to suitably qualified candidates who served in H.M. Forces in the 1914-18 or 1939-45 wars, provided the Ministry is satisfied that such candidates are, or within a reasonable time will be, able to discharge the duties efficiently.

Application forms may be obtained from the Director of Establishments, Ministry of Finance, Stormont, Belfast, to whom they should be returned with copies of two recent testimonials, so as to reach him not later than 21st April, 1954. 2002

BROMYARD URBAN DISTRICT COUNCIL.
Re BANNUTT TREE MEADOW ESTATE.
ERECTION OF 54 GREGORY HOUSES.

Applications are invited from ARCHITECTS, QUANTITY SURVEYORS or other suitably qualified persons for a part-time appointment to supervise the above-named Building Contract.

Applications in writing should reach the undersigned within 14 days from the publication of this notice.

Dated 13th March, 1954.

L. A. FLINT,
Clerk to the Council.

Bank House, Broad Street, Bromyard, Herefordshire. 2003

COUNTY BOROUGH OF SWANSEA.
BOROUGH ARCHITECT'S DEPARTMENT.

Applications are invited for the following established posts:—

(1) ONE SENIOR ASSISTANT QUANTITY SURVEYOR, Grade A.P.T., VIII.

(2) ONE SENIOR ASSISTANT ARCHITECT, Grade A.P.T., VII.

Applicants for appointment No. 1 should be Associates of the R.I.C.S. (Quantities), and have experience in the "taking off" of large building contracts, and for appointment No. 2 should be Associates of the R.I.B.A. and experience in the design and construction of new school buildings, and organisation and supervision of new building contracts will be an advantage.

Candidates must be under 45 years of age unless in Local Government Service. The appointment will be subject to the provisions of the Local Government Superannuation Acts, and may be terminated by one month's notice on either side. The successful candidate will be required to pass a medical examination.

Forms of application may be obtained from the Borough Architect, The Guildhall, Swansea, and are to be returned with the names of two referees, to the undersigned not later than Monday, 5th April, 1954.

Canvassing disqualifies.

T. B. BOWEN,
Town Clerk.

The Guildhall, Swansea.
10th March, 1954. 1951

CITY OF MANCHESTER HOUSING DEPARTMENT. Applications are invited from suitably qualified persons for the following appointments:—

ASSISTANT ARCHITECT. A.P.T., V (£620-£670).

(Applicants must be Registered Architects.)

ASSISTANT ARCHITECT. A.P.T., IV (£580-£625).

ASSISTANT ARCHITECT. A.P.T., III (£550-£595).

Particulars of age, qualifications and experience, should be forwarded to the Director of Housing, Town Hall, Manchester, 2, to be received not later than 7th April, 1954. Canvassing strictly prohibited. 2000

CITY OF CARDIFF.
APPOINTMENT OF ARCHITECTURAL ASSISTANT.

Applications are invited for the following appointment in the City Surveyor's Department:—

ARCHITECTURAL ASSISTANT (EDUCATION), A.P.T., Grade 6. (From 1st April, 1954, £695-£760 per annum.)

Candidates should possess the minimum qualifications and experience prescribed by the National Joint Council for Local Authorities' Administrative, Professional, Technical and Clerical Services for posts in the above-mentioned Grade.

General Conditions of Appointment may be obtained from the undersigned.

Applications, accompanied by the names and addresses of three referees, and endorsed "Architectural Assistant (Education), A.P.T., Grade 6," must be delivered to me not later than the 1st April, 1954.

S. TAPPER-JONES,
Town Clerk.

City Hall, Cardiff.
March, 1954. 1953

AMENDED ADVERTISEMENT.
BOROUGH OF BEDFORD.

Applications are invited for the following appointments in the Borough Engineer and Surveyor's Department:—

(*a*) Appointment of ASSISTANT ARCHITECT, Grade A.P.T., III-IV (£550-£625).

(*b*) Appointment of ASSISTANT QUANTITY SURVEYOR, Grade V-Va (£620-£710).

The commencing salaries will be based within the grades stated, according to the qualifications and experience of the successful applicants.

The Council will consider the provision of housing accommodation.

The above appointments will be subject to the provisions of the Local Government Superannuation Acts, 1937 to 1953, to the passing of a medical examination, and to the termination of the appointment by one month's notice in writing on either side.

Application forms and any further particulars may be obtained from the undersigned, and should be returned completed not later than 27th March, 1954.

F. W. DAWKES,
B.Sc.(Eng.), A.M.I.C.E., M.I.Mun.E., A.M.T.P.I.,
Borough Engineer and Surveyor.
Newnham House, Horne Lane, Bedford. 1972

BOROUGH OF BARKING.
DEPARTMENT OF THE BOROUGH ARCHITECT.

SENIOR ASSISTANT ARCHITECT. Grade A.P.T. VI (£695 to £760 per annum, plus London weighting).

Applications are invited for the above post.

Candidates must be A.R.I.B.A., with considerable practical experience of general Municipal work, including housing, and have been responsible for the supervision of architectural staff.

Application forms, together with details of the appointment, can be obtained from the Borough Architect, Town Hall, Barking, and are returnable to the undersigned not later than Monday, 29th March, 1954.

E. R. FARR,
Town Clerk.
Town Hall, Barking. 1952

COUNTY BOROUGH OF WALSALL.
PUBLIC WORKS DEPARTMENT.

Applications are invited for the following appointments:—

(*a*) ASSISTANT ARCHITECT. Grade A.P.T., V (£620-£670).

Applicants should be Registered Architects, and preference will be given to those holding a recognised Architectural qualification.

(*b*) JUNIOR ARCHITECTURAL ASSISTANT. Grade A.P.T., II (£520-£565).

Applicants should have reached R.I.B.A. Intermediate standard, and must be a neat and accurate draughtsman.

The appointments will be subject to the terms of the Local Government Superannuation Acts, and the persons appointed will be required to pass a medical examination.

Applications, enclosing copies of three testimonials, and stating age, present position, salary and technical qualifications, together with details of experience, should be submitted by the 31st March, 1954, to the undersigned.

M. E. HABERSHON, O.B.E., M.Eng.,
Borough Engineer and Surveyor.
Council House, Walsall.
8th March, 1954. 1973

HER MAJESTY'S COLONIAL SERVICE.
ARCHITECT, PUBLIC WORKS DEPARTMENT (DEVELOPMENT ESTABLISHMENT), NORTHERN RHODESIA.

To design, prepare working drawings and specifications for various Government projects, and supervise their erection either by contract or direct labour.

Appointment will be on contract for one tour of 3 years in first instance, in the salary range £940-£1,560 per annum, with gratuity of £100-£150 per annum on satisfactory completion of contract. Cost-of-living allowance varying between £123 and £195 10s. per annum is also payable.

Free passages for officer, wife, and children up to cost of one adult fare on first appointment and on leave. Leave at rate of 5 days for each month of resident service. Government quarters provided when available at rental of not more than 10 per cent. of salary.

Candidates, between the ages of 32 and 45, must be A.R.I.B.A., and have had at least 8 years' experience on the design, construction, and supervision of large building schemes.

Apply in writing to the Director of Recruitment, Colonial Office, Great Smith Street, London, S.W.1, giving briefly age, qualifications and experience. Mention the reference No. CDE 112/3/02. Closing date for receipt of initial enquiries: 12th April, 1954. 1974

THE DEPARTMENT OF HEALTH FOR SCOTLAND invite applications from Architects with the appropriate professional qualifications for temporary posts of ARCHITECT and ASSISTANT ARCHITECT. Headquarters Edinburgh. Candidates for Architect post, age 35 and upwards. Salary range: £980-£1,280. Duties concerned with development work on school building. For Assistant Architect posts age 25 and upwards. Salary range: £635-£980. Duties concerned with development work on schools and housing. Further particulars and application form from Establishment Officer, Department of Health for Scotland, St. Andrew's House, Edinburgh, 1. Closing date for applications: 3rd April, 1954. 1962

CITY AND COUNTY OF KINGSTON UPON HULL.

Applications are invited for the following appointments:—

(*a*) ASSISTANT ARCHITECT, Grade V, A.P.T. Division (£620 to £670 per annum). Preference will be given to candidates who have passed the final Examination of the R.I.B.A.

(*b*) ARCHITECTURAL ASSISTANT, Grades II, III or IV, according to qualifications and experience (salary scale £520 to £625 per annum). Applicants should have passed the Intermediate Examination of the R.I.B.A.

(*c*) ENGINEERING SERVICES ASSISTANT, Grade V, A.P.T. Division (£620 to £670 per annum). Applicants must be experienced in the design and preparation of drawings for modern hot water heating and supply schemes and ventilating apparatus and some knowledge of electrical installation work will be an advantage.

There is a programme of varied and interesting work in the Department and much valuable experience to be gained.

Appointments will be subject to one month's notice on either side, to the National Scheme of Conditions of Service and to the Local Government Superannuation Act, 1937.

Application forms, to be obtained from the undersigned, should be returned completed on or before 2nd April, 1954.

Andrew Rankine, O.B.E., A.R.I.B.A., City Architect, Guildhall, Kingston upon Hull. March, 1954. 1979

UNITED BRISTOL HOSPITALS.

Applications are invited from candidates possessing the qualifications laid down by the Ministry of Health for the post of GROUP ENGINEER. The salary will be on the scale £785 × £25—£885 per annum.

Applications, stating qualifications and experience and giving the names of three referees, should be sent to the Secretary to the Board of Governors, from whom further particulars may be obtained, at the Bristol Royal Infirmary, Bristol, 2, not later than Saturday, 30th April, 1954. 1980

CITY OF LIVERPOOL.
ARCHITECTURAL AND HOUSING DEPARTMENT.

Applications are invited for the undermentioned appointments, viz:—

(1) ARCHITECTURAL ASSISTANT (Architectural Housing Section)—Salary:—£580-£625 per annum. (A.P.T. Grade IV).

Applicants must have passed the Intermediate Examination of the R.I.B.A. or equivalent and should be experienced in housing design and layout.

(2) JUNIOR ARCHITECTURAL ASSISTANT (Redevelopment Section)—Salary:—£520-£565 per annum (A.P.T. Grade II).

Applicants must have passed the Intermediate R.I.B.A. Examination or equivalent.

Application forms obtainable from the City Architect & Director of Housing, Blackburn Chambers, Dale Street, Liverpool, must be returned to him by 3rd April, 1954.

The appointments are superannuable and subject to the Standing Orders of the City Council. Canvassing disqualifies.

THOMAS ALKER,
Town Clerk.
Municipal Buildings, Liverpool 2 (JA.3481). 1981

BOROUGH OF HAMPSTEAD require JUNIOR ARCHITECTURAL ASSISTANT. Salary: General Division, plus London weighting. Medical examination. No housing provided. Applications, giving age, experience, etc., with three referees, to the Town Clerk, Town Hall, Haverstock Hill, N.W.3. Closing date: 29th March, 1954. 1970

METROPOLITAN BOROUGH OF CAMBERWELL.
CHIEF ARCHITECT
(Department of Director of Housing and Borough Architect).

Salary: £1,000 × £50 to £1,150. Commencing salary according to experience. Qualification: A.R.I.B.A. No housing provided. Local Superannuation Act. Application form from Town Clerk, Town Hall, Camberwell, S.E.5. Closing date: 26th March, 1954. 1971

Tenders for Contracts

4 lines or under, 12s. 6d.; each additional line, 2s.

COUNTY BOROUGH OF SOUTHEND-ON-SEA.
LARGE SCALE KITCHEN EQUIPMENT.

Tenders are invited for the Supply and Delivery of Large Scale Kitchen Equipment for Bournemouth Park School Scullery and West Leigh School Kitchen.

General Conditions may be inspected and copies of Form of Tender and Specification obtained on and after Monday, 22nd March, 1954, on application to the Borough Architect, 30, Alexandra Street, on payment of a deposit of £2, which will be refunded on receipt of a *bona fide* tender or the return of all loaned documents.

Sealed tenders addressed to the undersigned and endorsed "Bournemouth Park and West Leigh Schools—Kitchen Equipment," are to be delivered to this office before 12 noon on Monday, 12th April, 1954.

No tender will be received except in the special envelope provided, which shall not bear any name or mark indicating the sender.

The Corporation do not bind themselves to accept the lowest or any tender.

ARCHIBALD GLEN,
Town Clerk.
2001

Architectural Appointments Vacant

4 lines or under, 7s. 6d.; each additional line, 2s.

The engagement of persons answering these advertisements must be made through a Local Office of the Ministry of Labour or a Scheduled Employment Agency if the applicant is a man aged 18-64 inclusive or a woman aged 18-59 inclusive unless he or she is, or the employment, is exempted from the provisions of the Notification of Vacancies Order, 1952.

ARCHITECTURAL ASSISTANT (preferably qualified) required in West Riding area. Some office experience preferred. Full particulars and salary required to Box 1861.

ARCHITECTURAL ASSISTANTS required for busy practice engaged upon schools, industrial buildings, offices, etc. Write, giving full particulars of qualifications, experience and salary required, to Johns & Slater, F./A.R.I.B.A., 32, Foundation Street, Ipswich. 1536

A SENIOR ARCHITECTURAL ASSISTANT required, full experience in preparation of Working Drawings, Details, and supervision of office and Industrial Buildings in the London Area. Good knowledge of construction and design essential. Apply in writing giving full particulars of qualifications, age, experience and salary required to Box 9829.

ARCHITECTURAL JUNIOR ASSISTANT required immediately. Must be good draughtsman and have sound knowledge of construction. Salary according to experience. Jackson & Jackson, Chartered Architects, 13, North Street, Ashford, Kent. 1833

ASSISTANT required immediately, with experience in Flats, Business Premises, etc. Prospects for suitable applicant of Intermediate to Final R.I.B.A. standard; busy office. South London area. Box 1815.

SENIOR and JUNIOR ASSISTANT urgently required for busy West End office. Good prospects for the right applicant. State previous experience and salary desired. Box 1912.

ARCHITECTURAL ASSISTANT or DRAUGHTSMAN, male or female, urgently required for busy Architects' office in country town near Worcester (Gloucestershire border). Reply, giving particulars of age, experience and salary required. Box 1867.

NEW ZEALAND ARCHITECTURAL PRACTICE, mainly in commercial and industrial work, requires SENIOR ASSISTANTS, preferably qualified A.R.I.B.A., with some experience since exams., either single or married, although accommodation easier for a single man. Good opportunity enterprising and capable man considering emigration. Commencing salary £750/£900 according capabilities. 2 years assured engagement and passage money assistance for right man, subject certain conditions. Apply airmail, with snapshot and personal and experience details, plus small working drawing own work, to Mitchell & Mitchell and Partners, P.O. Box 187, Wellington C.1, New Zealand. 1905

SENIOR ASSISTANT able to take charge of West End Architect's office, with predominantly industrial experience. Details of this experience, with age, qualifications and salary required to Box 1913.

ARCHITECTURAL ASSISTANT required in Westminster office of Consulting Engineers for work in connection with designs of Power Stations, Industrial Buildings, Administrative Office Blocks, etc. Apply stating age, experience and qualifications. Box 1904.

ARCHITECTURAL ASSISTANT with own car required by Architects with considerable hospital, ecclesiastical and general practice in North Wales and north-west England. Initiative and willingness to accept responsibility primary considerations. Starting salary £450 to £550 per annum, according to experience and ability. Car allowance. Apply immediately with particulars, to Box 1903.

ARCHITECTURAL ASSISTANT required, Central London office, engaged on housing, offices, churches, etc. Salary: £400-£450 per annum. All applications will be answered. Write, giving brief details of qualifications, experience, etc., to Box 1926.

ASSISTANT required for firm of contemporary Architects, the following qualifications being essential:—

(*a*) Should have reached Intermediate standard.
(*b*) Excellent drafting ability.
(*c*) Several years' office experience.
(*d*) Sound knowledge of construction.
(*e*) Keen interest in modern architecture.

Boissevain & Osmond, Portland Place, W.1. LAN. 7406. 1925

ARCHITECTURAL ASSISTANTS required. Applicants should have completed their National Service and have had at least 2 years' office experience. Apply in writing, stating age, training and experience, to the Chief Staff Architect, Ilford, Ltd., Romford, Essex. 1923

ARCHITECTURAL ASSISTANTS required for office working on commercial and industrial projects. Applicants should have had office experience, and must be quick and accurate draughtsmen, with a sound knowledge of construction. Apply in writing, stating age, training, experience, with salary required, to E. R. Collister, A.A.Dipl., A.R.I.B.A., 220, London Road, Chelmsford, Essex. 1975

ARCHITECTURAL ASSISTANT, with previous office experience, required for general practice in leading Midland office. Write, stating age, experience, and salary required, to Box 1998.

JUNIOR ASSISTANT required, about Intermediate standard, for private office in Devonshire. State salary required. Box 1997.

ARCHITECTURAL ASSISTANT, Student R.I.B.A., with office experience, required for responsible position in Lincolnshire office. State age, experience, and salary required. Box 1996.

VACANCY for ASSISTANT, capable of carrying through complete working drawings, details and specifications. Applicants should have passed the Intermediate examination at least, and some knowledge and experience of the repair of old buildings is desirable. Apply in writing to Waller & Son, 17, College Green, Gloucester. 1994

ARCHITECTURAL ASSISTANT, Intermediate standard, required by large Midlands Brewery Company. Please reply, giving details of age, qualifications, experience, and salary required, to Box 1995.

EXETER firm of Architects require ASSISTANT for industrial and general work. Write giving age, experience, and salary required. Box 1993.

A. M. GEAR, A.R.I.B.A., at 12, Manchester Square, London, has vacancies for ARCHITECTURAL ASSISTANTS, of Intermediate or Final standard, interested in the design of prefabricated structures. Apply above address. 1991

SENIOR ARCHITECTURAL ASSISTANTS urgently required at Head Office. Duties will include preparation of all working drawings and details for contracts involving Multi-storey Flats and Maisonettes. Salaries range £650 to £800 per annum according to qualifications and experience. Permanent appointments with good prospects. Written applications, giving brief particulars of qualifications and experience to Staff Architect, George Wimpey & Co., Ltd., 27, Hammersmith Grove, W.6. 1984

ARCHITECT required for Civil Engineer's Department of large industrial concern in Kent. Responsible for supervision of office, dealing with varied industrial and commercial projects. Applications should be made in writing stating full particulars of qualifications, age, experience and salary required. Box 1985.

ARCHITECTURAL ASSISTANTS.

ASSISTANTS required at not less than R.I.B.A. Intermediate Standard for the offices of Sir Percy Thomas & Son at both Cardiff and Swansea. Apply giving full particulars of experience, etc., to 10, Cathedral Road, Cardiff 1976

WORNUM AND PLAYNE, F./F.R.I.B.A., 19, Queen Anne's Gate, Westminster, S.W.1, require an architectural assistant near intermediate standard for work of a varied nature. Applications should be in writing with details. 1983

BUILDING CONTRACTORS in Scotland require the full-time services of a QUALIFIED ARCHITECT. The position is permanent and will carry an adequate salary. A Staff Pension Scheme is in operation. The duties of the successful applicant will be varied and interesting and will give full scope to a man interested in design and the development of building constructional methods. Applications should state approximate salary required, qualifications, brief details of appointments held and age, and should be addressed to Box 1977.

PRIVATE practice in Westminster area has vacancy for competent ARCHITECT'S ASSISTANT who must be capable of supervising contracts from sketch plan stage to completion; academic qualifications secondary to experience and ability. Must be an accurate draughtsman with good all round working knowledge and able to work with minimum supervision on all types of contracts. Applicants will be required to produce evidence of capability and draughtsmanship and will also be asked for references Salary by appointment according to experience and ability. Reply to Box 1959.

ARCHITECTS require ASSISTANT, with some experience, up to Intermediate R.I.B.A. standard. Varied practice, excellent working conditions, staff pension scheme, generous holidays. Salary according to capability. Apply Philip Skelcher & Partners, 17, Poplar Road, Solihull. 2007

UNIVERSITY OF OXFORD.—ARCHITECTURAL DRAUGHTSMAN, of Inter. standard, required immediately. Experience in general alteration and small works an advantage. Salary about £400. Apply fully to the Surveyor to the University, 5, South Parks Road, Oxford. 2011

JUNIOR ASSISTANT (pre-inter. standard) required for interesting contemporary work, good draughtsman with sound knowledge of construction essential. Apply giving full details to Edward D. Mills, 16, Carlisle Street, Soho Square, W.1. 1958

ARCHITECTURAL ASSISTANT, with office experience, required immediately for London office, having a varied practice. Must be a neat draughtsman, with a sound knowledge of construction. Salary: £575 p.a., or by arrangement. Apply Covell & Matthews, 48, Seymour Street, Portman Square, W.1. AMB. 2254. 1969

EXPERIENCED SENIOR ARCHITECTURAL ASSISTANT required for private office. Write with full particulars, including age and salary, to Hasker and Hall, Architects, 13, Welbeck Street, W.1. 1957

JUNIOR ARCHITECTURAL ASSISTANT required. Salary £338-£390. Co-partnership firm with opportunities for keen man. Apply Co-operative Planning Ltd., 73b, South Side, Clapham Common, S.W.4. 1956

SENIOR ARCHITECTURAL ASSISTANT required immediately in busy and varied practice in the West Riding of Yorkshire. Final R.I.B.A. essential, and some office experience desirable. Salary according to R.I.B.A. scales as a minimum, and to qualifications and experience. Pension scheme in operation. Apply with full particulars. Box 2005.

JUNIOR ARCHITECTURAL ASSISTANT required immediately in busy and varied practice in the West Riding of Yorkshire. Intermediate R.I.B.A. qualification essential, and a minimum of two years' office experience. Salary in accordance with R.I.B.A. scales as a minimum and to qualifications and experience. Pension scheme in operation. Apply with full particulars. Box 2006.

ARCHITECTURAL ASSISTANT. Building development company requires the services of an ARCHITECTURAL ASSISTANT. Applicant must be quick and accurate draughtsman with sound knowledge of modern building techniques. Production of ½ in., ¼ in., and F.S. working drawings and ability to apply standardised methods of construction to new buildings. Salary commensurate with experience. Apply Box 1955.

ARCHITECTURAL ASSISTANT required with sound knowledge of construction and specification writing. Salary £600 per annum. S. Dodson & Son, L./A.R.I.B.A., Museum Buildings, Priestgate, Peterborough. 1954

THE BIRMINGHAM CO-OPERATIVE SOCIETY require the services of a SENIOR ARCHITECTURAL ASSISTANT to work under the direction of the Society's architect, R. K. Lewis, A.R.I.B.A. Applicants must have sound knowledge of construction and preparation of working drawings. Experience in design of industrial buildings and multiple stores. Salary according to qualifications. Superannuation Scheme. Applications stating age, qualifications and salary required, endorsed architectural assistant, should be sent to the Personnel Officer, B.C.S. Ltd., High Street, Birmingham, 4. 1945

ARCHITECTS require ASSISTANT. First-class draughtsman for detailing on technical college. Yorke, Rosenberg & Mardall. 1967

ARCHITECTURAL ASSISTANT required by firm of Architects and Surveyors in Home Counties. General practice. Apply stating experience and salary to Box 1949.

EXPERIENCED ARCHITECTURAL DRAUGHTSMAN wanted. Salary £600 up. Apply to:—W. Curtis Green, R.A., Son & Lloyd, 5, Pickering Place, St. James's Street, S.W.1. 1946

NORMAN & DAWBARN may require SENIOR ARCHITECTURAL ASSISTANT preferably between 35 and 40, good planner and organiser, with experience of reasonably large work in private practice. Preliminary applications to 5, Gower Street, London, W.C.1, marked "Confidential." 1947

ARCHITECTURAL ASSISTANT, Inter. R.I.B.A. standard, required in S.W. London office. 2-3 years' experience is essential, preferably in private London practice. Salary according to experience and ability. Write, stating full particulars, to Box 1963.

ARCHITECTURAL ASSISTANTS of all grades urgently required for extensive projects in South-East Asia. Vacancies both in London office and abroad. Minimum overseas tours 9 months, maximum 2 years. Applicants should write, giving all particulars and stating whether they are applying for a post at home or overseas, to Raglan Squire & Partners, 3, Hobart Place, London, S.W.1. 1966

Architectural Appointments Wanted

SENIOR R.I.B.A. member with wide experience at home and overseas, seeking responsible position with established London firm. Partnership or prospect, welcomed as alternative. Capital available. Box 1893.

ARCHITECT, A.R.I.B.A., age 32, capable designer and organiser, seeks position offering responsibility and genuine prospects in return for hard work and ability. London area. Box 1978.

ARCHITECT, Dip.Arch., A.R.I.B.A., 7 years' varied office experience, seeks appointment as Senior Assistant, with view to partnership. Box 862.

CHARTERED ARCHITECT (40) requires senior position in London area or provinces. 20 years' experience in Design, Construction, and Supervision of all types of buildings. Salary £800. Box 1960.

A. R.I.B.A. Age 43, requires appointment, excellent general experience, highest testimonials, small busy office preferred with prospects of view to partnership. Box 861.

ARCHITECT, A.R.I.B.A. (27), school trained, 7 years' office experience of contemporary design, and lately on restoration of historical buildings and landscape, seeks part-time employment in London area. Box 1965.

Other Appointments Vacant

4 lines or under, 7s 6d.; each additional line, 2s.

The engagement of persons answering these advertisements must be made through a Local Office of the Ministry of Labour or a Scheduled Employment Agency if the applicant is a man aged 18-64 inclusive or a woman aged 18-59 inclusive unless he or she or the employment, is excepted from the provisions of the Notification of Vacancies Order, 1952.

VACANCY arises for Articled Pupil (Architectural or Building Surveying) in City Firm. Box 1720.

SENIOR SHORTHAND TYPIST required. Architect/Surveyor's office, aged 30/40 approx. Commencing salary £375. Free lunches. 1 Saturday duty in 3. Apply L. Robinson (Thos. Tilling, Ltd.), 15, Curzon Street, W.1. 1968

CLERK OF WORKS.

APPLICATIONS are invited from suitably qualified persons for the appointment of CLERK OF WORKS to supervise the erection and completion of a new Store Building on four floors in steel and reinforced concrete in Southampton.

The duration of the contract is likely to be about 18 months and the appointment will be terminable by one month's notice on either side.

Applications should be made in writing to the Architects, Messrs. Yorke, Rosenberg & Mardall, 2, Hyde Park Place, London, W.2, and should reach their office not later than (10 days after date of publication) 1954. Applicants are asked to state in their application their qualifications, experience and salary required. 1948

Services Offered

4 lines or under, 7s 6d.; each additional line, 2s

EXPERIENCED LONDON ARCHITECT with own office able to give assistance to Architects, etc. Gladstone 7355. Box 1640.

ARCHITECTURAL MODEL MAKERS.—Speed and service. 22, Holland Road, W.14. Western 9908. 1781

SURVEY of Sites and Buildings, Detailed Drawings, Quantities, Variations Measured, Final Accounts, Specifications and Reports. Qualified Surveyor. LIV. 1839. 1352

ARCHITECT (47), experienced, London and Tropics, offers services full- or part-time for short period, fee or hourly basis. Box 1950.

GOOD LETTERING IS ESSENTIAL for Commemorative Wall Tablets, Foundation Stones, etc. Layouts and F.S. templates prepared. Estimates given for the finished work in any material. Renowned as a Lettering Centre since 1934. Sculptured Memorials, 67, Ebury Street, London, S.W.1. 2010

ASSOCIATE, widely experienced all branches, offers services to Architects, London or West Essex, requiring temporary assistance. Moderate remuneration. Box 2009.

MANCHESTER QUANTITY SURVEYOR, just starting in practice on own account, covering Lancs. and Ches., will undertake all branches of quantity surveying from estimate to final account. Architectural services also available. Terms by arrangement. Box 2012.

For Sale or Wanted

4 lines or under, 7s. 6d.; each additional line, 2s.

RECONDITIONED EX-ARMY HUTS, and manufactured buildings. Timber, Asbestos, Nissen type, Hall type, etc. All sizes and prices. Write, call, or telephone, Universal Supplies (Belvedere), Ltd., Dept. 25, Crabtree Manorway, Belvedere, Kent. Tel.: Erith 2948. 6803

CONSULTING ENGINEER, with established practice, requires small Office in London. Would share with Architect or Surveyor. Box 1992.

PRACTICE FOR SALE.

SMALL but growing general practice. South-West suburban town. Good scope for energetic architect. Office fully equipped in central position. Apply first instance Box 1961.

OFFICE SPACE, minimum 400 ft. super., required in Victoria district by Chartered Quantity Surveyor. Box 1964.

Miscellaneous

4 lines or under, 7s. 6d.; each additional line, 2s.

A. J. BINNS, LTD., Specialists in the supply and fixing of all types of Fencing, Gates and Cloakroom Equipment. Harvest Works, 96/107, St. Paul's Road, N.1. Canonbury 2061.

FOR FULLY GALVANISED Chain Link always specify MASTERFOIL, made to B.S.S. 1722. Fencing & Gates, Ltd., 14, Stanhope Gate, London, W.1. Tel. Grosvenor 4527. 9926

WEST END OFFICES TO LET.

WIGMORE STREET, W.1. Open space offices available on 2nd, 3rd and 4th floors. Total area, 1,250 sq. ft. Rent only £550 p.a. ex. Corner building, ample natural light. May consider letting 3rd and 4th only. Area 920 sq. ft., rent £400 p.a. ex. Apply Manners, Hearne & Manners, Surveyors, 45, London Wall, E.C.2. MON. 0794. 2008

Educational Announcements

4 lines or under, 7s. 6d.; each additional line, 2s.

R.I.B.A. AND T.P.I. EXAMS.—Stuart Stanley (Ex. Tutor Sch. of Arch., Lon. Univ.), and G. A. Crockett, M.A./B.A., F./F.R.I.B.A., M./A.M.T.P.I. (Prof. Sir Patrick Abercrombie in assn.), prepare Students by correspondence, 10, Adelaide Street, Strand, W.C.2. TEM. 1603/4.

R.I.C.S., I.Q.S.; and I.A.A.S. Postal Courses for all exams. including R.I.C.S. Preliminary and I.Q.S. Special Test conducted by the Ellis School (Principal: A. B. Waters, M.B.E., G.M., F.R.I.B.A.), 103B, Old Brompton Road, S.W.7. KEN. 4477. Descriptive Booklet on request. 7020

Alphabetical Index to Advertisers

For Appointments (Wanted or Vacant), Competitions Open, Drawings, Tracings, etc., Education, Legal Notices, Miscellaneous Property, Land and Sales, xcix, c, ci, cii, ciii.

PAGE
xxvii
xlviii
ci
xcviii
lxxx
xci
liii
vii
xlv
ciii
vi
xxi
xciv
lxxxiv
xiv
lxxxix
xciii
xxxv
lxxxi
xlvi
xxx
lxxxvii
xciv
x
ciii
xxiii
xcvii
xcviii
l
lii
lxii
ciii
xli
xlvii
lxvi
xxiv
xcvi
lxxxvii
iii
xxxvii
v
xxxix
lxxxiii
xcv
lxiv
ii
ciii
xliii
lxxxix

PILOT

s, even if

utomatic

vall face.

switches

tant use.

request.

request.

th March.

tral 3701

Printed in Great Britain for the Proprietors of "THE ARCHITECTS' JOURNAL" (The Architectural Press Ltd.), 9, 11 and 13, Queen Anne's Gate, Westminster, S.W.1, by HARRISON & SONS LTD., Printers to the late King George VI, London, Hayes (Middx.), and High Wycombe.
Editorial illustrations engraved by THE ENGRAVERS' GUILD LTD., Windsor House, 23/26, Cursitor Street, London, E.C.4